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ABSTRACT

A statistical portrait is provided of private schools in the United States, using the best national data available to the National Center for Education Statistics (NCES). Previously published work is used to give an overview of private schools from 1980-81 through 1985-86. Following an introductory examination of private schools in the United States, Chapter 2 provides estimates and trends. Chapters 3 and 4 synthesize national data on the number and characteristics of private school students, teachers, and other staff. Chapter 5 discusses curriculum, resources, and student outcomes. Chapter 6 reviews national data on parental choice. Chapter 7 reviews upcoming research efforts of the NCES concerning private schools. In 1985-86, private elementary schools and secondary schools accounted for about 25% of all schools, between 12 and 13% of all students, and about 14% of all teachers. Eight of 10 private schools had a religious orientation; 36% were Catholic schools, and about 60% of all private school students were in Catholic schools. Program emphasis varied by school orientation. Seventy tables provide information about the private schools, and 12 graphs further illustrate the discussions. Appendix A contains 20 standard error tables. Appendix B reviews data collection procedures. (SLD)

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Private Schools in the United States: A Statistical Profile, With Comparisons to Public Schools

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HIGHLIGHTS

In 1985-86, private elementary and secondary schools accounted for approximately 25 percent of all schools, between 12 and 13 percent of all students, and about 14 percent of all teachers in the United States. Over the first half of the 1980s, the number of private schools increased by 14 percent, enrollment fluctuated between 11 and 13 percent of total elementary and secondary enrollments, and the private school teaching force fluctuated between 10 and 14 percent of all U.S. teachers.

Eight out of ten private schools had a religious orientation and about 85 percent of all private school students attended schools with a religious orientation. Catholic schools accounted for 36 percent of all private schools and enrolled about 60 percent of all private school students. Conversely, other religious schools accounted for 45 percent of all private schools, but only enrolled about 25 percent of all private school students. Consistent with these patterns, Catholic schools tended to be larger than other private schools, with average school sizes of 363 for Catholic schools, 174 for nonsectarian schools, and 142 for other religious schools.

Program emphasis of schools varied by school orientation. For example, traditional elementary and secondary programs accounted for about 99 percent of all Catholic schools, 94 percent of all other religious schools, and 56 percent of the nonsectarian schools. In contrast, about 1 percent of Catholic schools, 6 percent of other religious schools, and 44 percent of the nonsectarian schools reported programs focusing on alternative, vocational, or special education. This program emphasis reported by nonsectarian schools reflects the diversity present in the types of schools that make up this group.

The distribution of teachers was similar to the pattern described for student enrollments, with 46 percent of all full- and part-time school teachers employed in Catholic schools, 31 percent in other religious schools, and 23 percent in nonsectarian schools.

In both private and public schools the majority of the teaching force was female (76 percent of all private school teachers and 68 percent of all public school teachers). This pattern varied by school level;

males accounted for only 10 percent of all elementary level teachers in private schools, compared with 49 percent of all secondary level private school teachers.

In 1985-86, education was the most common undergraduate major among private school teachers, with 63 percent having majored in education. Approximately one-half of all private school teachers participated in some additional training in 1984-85. When coursework was considered, more than one-half of the teachers of foreign languages, social science, English and language arts, business science, art and music, and biological sciences reported completing 13 or more credit hours of coursework. In contrast, at least one-quarter of the teachers of computer science, business science, and physical science reported completing less than 4 credit hours in an assigned subject area.

Teacher salaries for full time teachers were lower in private schools than public schools; in fact, when average base salaries for the two groups were adjusted to 1985-86 dollars, the average base salary for private school teachers was only 59 percent of the average base salary for public school teachers.

In the 1985-86 school year there were 17 pupils per teacher in private schools, compared to 17.9 pupils per teacher in public schools. The fact that Catholic schools reported a larger share of the student enrollments than their share of the teaching force translates into a pupil-to-teacher ratio of 21 to 1 for Catholic schools, compared to pupil-to-teacher ratios of 15 to 1 in other religious schools and 10 to 1 in nonsectarian schools.

On the topic of student goals, public school teachers at the secondary level were most likely to select literacy skills, good work habits, and self-discipline as high priority goals for their students. Teachers in religious private schools identified moral and religious values and literacy skills as the most important goals for their students. And teachers in nonsectarian schools assigned a high priority to literacy skills, personal growth, and good work habits and self-discipline.

Secondary school teachers' ratings of their colleagues, principals, and school administrators showed that at least two-thirds of all teachers in both public and private schools indicated that their colleagues shared their beliefs and values on school mission, the school staff maintained high standards of performance, and a cooperative effort existed among staff. Despite these shared appraisals across private and public schools, significantly fewer public than private school teachers gave good ratings on school spirit and sense of familial bond within the school.

Estimates from the 1982 High School and Beyond study show that 24 percent of the sophomore class in public schools, 12 percent of the sophomore class in Catholic schools, and 13 percent of the sophomore class in other private schools dropped out of school before the end of their senior year.

Studies from 1982 and 1985-86 show that 80 to 90 percent of all graduating seniors applied to college. Available data from the 1980 high school graduates show that 49 percent of the private high school graduates and 29 percent of the public high school graduates were enrolled in 4-year colleges in the fall of 1980.

By the spring of 1986, approximately one-half of the 1980 private high school graduates and two-thirds of the 1980 public high school graduates reported their highest degree earned was the high school diploma. An additional 37 percent of the 1980 graduates from other private high schools, 29 percent of the 1980 Catholic high school graduates, and 13 percent of the 1980 public high school graduates reported having received a bachelor's degree by the spring of 1986 (1982 High School and Beyond study).

The percentage of Hispanic high school seniors in 1980 who received a BA, BS, or MA degree by the spring of 1986 ranged from 9 percent of public school students to 25 percent of Catholic school students and 26 percent of other private school students. Among black 1980 high school seniors, the percentages receiving one of these degrees by spring 1986 were 9 percent of public school students, 25 percent of Catholic school students, and 31 percent of other private school students.

CHAPTER 1

INTRODUCTION

Since 1852, when Massachusetts enacted the first compulsory school attendance law, two schooling traditions--one public, one private--have become mainstays in American education. Although each tradition predates the 1850s, significant social changes in the mid-19th century contributed to growth in both sectors. The Massachusetts law gave impetus to the rapid expansion of public schooling, as other States followed suit. At about the same time, waves of Catholic immigrants were arriving in the United States, first from Ireland and then from central and southern Europe. The number of Catholic schools and students increased dramatically as this immigration continued (Carper 1983). Between 1880 and 1920, for example, the number of Catholic schools nearly tripled (from 2,200 to 5,800), and the number of pupils multiplied by a factor of four (from 400,000 to 1,700,000) (Buetow 1970). With low tuition and a mission of service, Catholic schools also drew significant numbers of non-Catholics, many of whom were economically disadvantaged. Between 1890 and 1917, 76 Catholic schools enrolling black students were opened (Buetow 1970).

Paralleling the emergence of Catholic schools was the growth of private schools designed to meet the needs of students from a variety of religious denominations. By the early 1980s, for example, there were estimated to be 1,603 Lutheran Church-Missouri Synod schools, 1,324 Seventh-day Adventist schools, 527 Episcopal schools, and 572 Jewish schools (Cooper 1984).

The important story of diversity within private schools (Kraushaar 1972) must include significant attention to nonsectarian private schools. These schools are no more monolithic in purpose and demography than are religious schools. The missions of nonsectarian schools are varied. Some are designed to provide programs of academic excellence, some to provide alternative pedagogical or ideological approaches to education, others to provide specialized training such as vocational education, and another group to provide services for youth in need of special attention.

Private schools in the United States in 1988 composed a rich and diverse mosaic. The approximately 18,000 private schools in the United States enrolled about 12 percent of all students (U.S. Department of Education 1987). Evidence suggests that the private school sector is growing in number of schools. These trends are presented in chapter 3 along with current estimates and trend data on the affiliations of private schools.

Historically, data on private schools and private education have focused on estimates of the numbers of schools, students, and teachers; however, recent efforts have gone beyond these limited goals. In fact, the National Center for Education Statistics (NCES), chartered within the U.S. Department of Education to monitor the conditions of education in the United States, has taken a number of steps over the past decade to improve the diversity and quality of private school data. Since 1980, NCES has sponsored several national private school surveys, including, most recently, an ongoing national Schools and Staffing Survey (SASS) that includes comparable data for public and private schools. NCES continues to devote considerable resources and energies to the development of a universe list of private schools and a related ongoing data collection effort for basic private school statistics. NCES has also increased the size of the private school samples on two other national education surveys, namely the National Assessment of Educational Progress (NAEP) and the National Education Longitudinal Study of 1988 (NELS:88). NCES also continues to work closely with private school associations and officials to review data concerns.

The purpose of this report is to draw a statistical portrait of private schools in the United States, using the best national data available. The report does not purport to tell all that is known, but, rather, draws upon previously published work to provide an overview of basic private school data primarily for the school years 1980-1981 through 1985-86. In choosing what to include, the authors have given priority to those studies which either compare public and private schools or make it possible to compare several private school subgroups, or both. In addition, this report uses national data with sample sizes sufficient to draw reliable national estimates.

This report is organized into 7 chapters. Following the presentation in chapter 2 on estimates and trends for private schools, chapters 3 and 4 synthesize national data on the number and characteristics of private school students, teachers and other staff in private schools. Chapter 5 discusses what has been learned about curriculum, resources, and student outcomes, and chapter 6 briefly summarizes national data on parental choice. Chapter 7 reviews upcoming private school research efforts of NCES.

This report is primarily descriptive in nature. Because the report is based completely on previously published or previously tabulated data, standard errors were not always available for carrying out statistical tests. In those cases where standard errors were not available, the data are simply described with no specific comparative statements included. Comparisons stating specific differences--indicated by the phrases different, varied by, higher/lower, greater/fewer, larger/smaller, more/less--are significant at the 95 percent confidence level. The estimates of available standard errors used in conducting the tests of statistical significance were all computed using variance estimation procedures suitable to the complex sample surveys summarized in this report. Appendix A presents tables of standard errors. Appendix B summarizes the data collection procedures employed for the data reported in this report.

KEY FINDINGS

About 6 out of 10 private schools were elementary schools with no grade higher than 8th. Another 3 out of 10 had at least some students above the eighth grade level. The remaining 12 percent of private schools focused on alternative education, vocational education, or special education. Grade by grade enrollments show that pre-kindergarten and kindergarten enrollments accounted for 24 percent of all students in nonsectarian schools and 21 percent of all students in other religious schools, compared with only 1 percent of all Catholic school enrollments.

Current Population Survey enrollment data show that in 1985 about 12 percent of all white students, about 7 percent of all Hispanic students, and about 4 percent of all black students attended private schools. Although private school enrollments of minority students were proportionally fewer than their representation in the total student population, only 12 percent of all private schools had no minority students. Approximately four out of ten students in both private and public schools were members of middle income families with incomes between $15,000 and $34,999; despite this similarity between the public and private school student populations, on average, the family income of students attending private schools was higher than the family income of students attending public schools. This pattern was repeated in the parents' educational attainment. Thirty-five percent of all students in both public and private schools came from families where one or both parents have some post-secondary education, but not a bachelor's degree; however, proportionately more students in private schools had parents with 4 or more years of college.

In 1985, just under one-half of all private school teachers were employed at the elementary school level, 20 percent were employed at the secondary level, 20 percent taught some combination of elementary and secondary classes, and 9 percent taught in schools with a focus on alternative education, vocational education, or special education. Some 83 percent of all private school teachers taught full-time, compared to 88 percent of all public school teachers.

In addition to the basic teaching force, many private schools employed staff in a variety of other professional categories as well. Not surprisingly, in 1985-86 most schools (94 percent) reported having a principal. Teachers' aides were more likely to work in elementary schools, while secondary schools were more likely to employ guidance counselors and librarians. About three out of four private schools received assistance from unpaid volunteers, with 84 percent of Catholic schools, 72 percent of other religious schools, and only 45 percent of nonsectarian schools using volunteers.

About one-half of the private school teachers and two-thirds of the public school teachers reported 10 or more years of teaching experience; 95 percent of all private school teachers and 99 percent of all public school teachers held at least a bachelor's degree. In private schools, one-third of the degreed teachers held an advanced degree, and male teachers were more likely to hold an advanced degree than female teachers.

When asked about selected student services and programs in 1985-86, at least one-half of all private schools reported offering some remedial reading and math, diagnostic services, and, at the secondary level, foreign languages. Similarly, 61 percent of all private schools reported one or more students receiving at least one of a variety of possible services paid for with public funds. In 1985-86, fewer than 40 percent of all private schools and about one-half of all private schools with grades 10, 11, or 12 required an entrance examination as a criterion for admission.

Data from the NCES 1980 High School and Beyond Study show that while public school student enrollments at the secondary level were fairly evenly divided between academic programs (36 percent), general programs (35 percent), and vocational programs (29 percent); about 70 percent of all private school students at the secondary level were enrolled in academic programs, with approximately 18 percent in general programs, and about 10 percent in vocational programs.

High school students were asked to identify the characteristics that are important in ideal teachers. Regardless of the type of school, at last 80 percent of the students considered it important for teachers to make clear presentations, treat everyone with respect, patience and understanding, and enjoy their work. At least two-thirds of all students indicated that it is important that teachers not talk over students' heads. While teachers received high marks on enjoying their work and treating everyone with respect, only 14 to 37 percent of the students gave their teachers high marks on the remaining characteristics that they rated highly in an ideal teacher.

The majority of public and private secondary school teachers expressed positive attitudes towards principals and school administration; but relatively more teachers in public secondary schools expressed dissatisfaction with their principals and school administration. And, while teachers in private secondary schools reported generally positive attitudes towards their students (70 to 85 percent affirmative), 50 to 60 percent of the public school teachers reported that students' lateness and absence were problems and that students' attitudes reduced their chances for success.

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CHAPTER 2

SCHOOLS

NUMBERS OF PRIVATE SCHOOLS

The NCES 1985-86 Private School Survey yielded an estimate of 25,616 private schools in the United States. Compared to the 82,400 public schools in 1985-86, private schools composed approximately 24 percent of all schools in the United States (table 2-1). These 1985-86 data represent one estimate in ongoing NCES efforts to accurately measure the number of private schools in the United States. Earlier studies, such as the NCES 1980-81 Private Elementary and Secondary School Survey, were based on surveys of schools included on a "universe list" of private elementary and secondary schools (U.S. Department of Education 1981, 1982). In an attempt to identify the portion of the private school universe that was not captured on the existing "universe list," the NCES 1983-84 Private School Survey augmented the universe sampling frame with an area sampling frame of private schools located through a search of sampled geographic areas. The 1983-84 Private School Survey yielded an estimate of 27,700 private schools in 1983-84 and estimated that there were approximately 6,000 private schools not previously included on NCES lists (U.S. Department of Education 1984).

For budgetary reasons, the 1985-86 Private School Survey used the 1983-84 area list for the sampling frame. The list was not updated before the 1985-86 sample was drawn. As a result, schools that closed between 1983-84 and 1985-86 were not available for interview and thus not included in the 1985-86 study; in contrast, schools that opened after 1983-84 were not identified and thus not available for inclusion in the 1985-86 study (U.S. Department of Education 1987). Since the number of private schools established in the 2 intervening years is unknown, it is not possible to simply add these schools to the 1985-86 estimates. However, in order to get a gross estimate of the magnitude of change, respondents in the 1983-84 study were asked whether their school had been open in 1980-81. The number of schools opened between the 1980-81 school year and the 1983-84 school year was compared to the 1983-84 estimate of the number of schools in existence in 1980-81 to yield a rate of change. Annualized rates of change computed for the 1980-81 to 1983-84 period were then applied to the 1985-86 data to yield an adjusted estimate that included an estimate for newly opened schools. This estimate was based on the assumption that changes were constant between the 1980-83 and 1983-85 periods (U.S. Department of Education 1987). This procedure yielded an adjusted estimate of 28,000 private schools in 1985-86 (table 2-1). While this estimate is larger than the original estimate, when the data are disaggregated by school characteristics both the original and adjusted estimates result in nearly identical estimates of percentages and means (U.S. Department of Education 1987).

Beyond the estimation problems associated with newly established schools, several other factors can contribute to undercount problems in the estimation of the number of private schools. In particular, there are no mandatory State or national reporting requirements for private schools in the United States, nor has there been an established ongoing data collection effort. In addition, the private nature of these schools may preclude voluntary participation on the part of some schools. Both the private school data collection project and the Schools and Staffing Survey described in chapter 1 have the potential for improving upon the quality of private school data through the regular repeated collection of a basic core of data over time.

The estimate from the 1983-84 survey and the adjusted estimate from the 1985-86 survey can be compared with data for the 1980-81 school year to examine recent trends in the number of private schools. However, the current problems associated with private school data collections have pervaded efforts of previous private school analysts as well. In fact, repeated efforts to overcome the problems that still persist have resulted in changes in data collection methods over time (summaries of these procedures are included in appendix B). These changing methodologies may contribute to some portion of the differences observed. Quantifying the exact proportions of observed changes attributable to actual change as opposed to improved data collection techniques is not possible.

Table 2-2 presents private school estimates reported by NCES and its predecessor organizations for the period 1980-81 through 1985-86. Over that period, the number of private schools increased from 24,500 to 28,000 (adjusted for growth). This represented a 14 percent increase over this 5-year period. Over the same time period, public school numbers declined 3.1 percent.

Even though the 1985-86 Private School Survey did not include any new schools opening between 1983-84 and 1985-86, 26 percent of the schools in the 1985-86 survey reported that they had opened in the preceding 10 years and another 24 percent reported having been open from 11 to 24 years (table 2-3). Thus, the 14 percent increase observed between 1980-81 and 1985-86 was indicative of a longer term trend of an increase in the number of private schools. The age distribution of schools varied by orientation, with 84 percent of all Catholic schools in operation 25 years or more and 45 percent of all other religious schools in operation 10 years or less.

ORIENTATION OF PRIVATE SCHOOLS

Available data for private schools can be categorized by orientation--Catholic, Other Religious, and Nonsectarian. Data from 1985-86 show that 36 percent of private schools were Catholic schools, 45 percent were other religious schools, and 18 percent were nonsectarian schools (table 2-4). Thus, when Catholic and other religious schools were considered together, schools with a religious orientation composed about eight out of ten of all private schools. Further distinctions probably can be made between types of schools within each of these categories. Data collection activities in the 1987-88 Schools and Staffing Survey (SASS) will allow for the analysis of further disaggregations of these data.

The composition of private schools has changed substantially over the course of the 20th century. In the early part of the 20th century, nearly all private schools were Catholic schools (at least 90 percent). By 1980, only about one-half of all private schools were Catholic (table 2-5). Since 1980, the number of Catholic schools has continued to decline, while the number of other private schools has increased; thus, in 1985, Catholic schools accounted for only one-third of all private schools.

LEVELS OF PRIVATE SCHOOLS

Data from the 1985-86 Private School Study show that 59 percent of all private schools were elementary schools, with no grade higher than eighth (table 2-4). Nine percent of private schools were secondary schools, with no grade lower than seventh; and 20 percent were combined schools that include some overlapping of the elementary grades below grade seven and the secondary grades above grade eight. The remaining 12 percent were private schools with a focus on alternative education, vocational education, or special education.

Just over 80 percent of all Catholic schools were reported as elementary schools in the 1985-86 Private School Study, with 16 percent reported as secondary schools, 2 percent reported as combined elementary and secondary schools and just under 1 percent reported as schools with a focus on alternative, vocational or special education (table 2-6). About one-half of the other religious schools were elementary, 37 percent were combined elementary and secondary schools, 6 percent were alternative, vocational or special education schools, and 5 percent were secondary schools. By comparison, 44 percent of the nonsectarian schools reported a focus on alternative, vocational, or special education, 35 percent offered solely elementary programs, 15 percent offered combined elementary and secondary programs, and 7 percent offered solely secondary programs.

PROGRAMS IN PRIVATE SCHOOLS

The vast majority (88.6 percent) of private schools offered primarily traditional elementary or secondary programs, or both (table 2-7). Five percent of private schools had a special education focus and an additional 6 percent were alternative schools, offering a nontraditional curriculum designed to meet student needs that could not be met in regular schools. While 99 percent of the Catholic schools had a traditional elementary or secondary program focus, or both; only 56 percent of the nonsectarian schools shared this focus. Among nonsectarian schools, 25 percent had a special education focus and 18 percent offered alternative programs. Some 6 percent of the other religious schools offered alternative programs, but like the Catholic schools, the overwhelming majority of these schools (94 percent) had a traditional elementary or secondary program focus, or both.

PRIVATE SCHOOL TUITION

In the 1985-86 Private School Study, all but 6 percent of the private schools reported that they charged some level of tuition. These tuition fees frequently varied by grade level, and 9 out of 10 private schools discounted tuition rates for such reasons as the enrollment of additional students from the same family, financial need, or church membership. For purposes of analysis, the highest rate reported by each school was used to compute the distribution across schools for all private schools and for private schools by orientation.

The median tuition for private elementary schools in October 1985 (for students for whom tuition levels were reported) was $774 (table 2-8). Nonsectarian elementary schools had the highest median tuition, $2,282 compared with $692 in church related elementary schools. Secondary schools charged higher tuitions than elementary schools. The median tuition in private secondary schools was $1,569. The median tuition for nonsectarian secondary schools was higher at $3,571, compared with $1,508 in church related schools.

ADDITIONAL PRIVATE SCHOOL CHARACTERISTICS

Data from a 1978-79 survey suggest that 2 percent of all private schools had only boarding students, with an additional 5 percent including some boarding students (table 2-9) (U.S. Department of Education 1981). Some 6 percent of nonsectarian schools were boarding-only schools, compared with about 1 percent of the other religious schools and less than 1 percent of the Catholic schools.

The 1978-79 survey also included data on the gender composition of private schools. The vast majority (93 percent) were reported to be coeducational; about 4 percent reported as all-boys and about 3 percent reported as all-girls schools (table 2-9).

Most elementary Catholic schools were parish controlled (87 percent) (table 2-10). At the secondary level, however, Catholic schools were predominantly diocesan (34 percent) or private (40 percent).

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Table 2-1.--Number of public and private elementary-secondary schools in the United States: 1985-86

(In thousands)

	Total	Public	Private Number	Private Percent of total
Private school data (unadjusted)	108,016	82,400	25,616	23.7
Private school data (adjusted)	110,400	82,400	28,000	25.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and the Common Core of Data survey.

Table 2-2.--Number of private and public elementary-secondary schools: Selected years 1980-1985

Year	Total	Private	Public
1980-81	110,400	*24,500	85,900
1983-84	112,700	27,700	85,000
1985-86	110,400	28,000	82,400

*1983 retrospective data were used to compute a revised estimate for 1980-81.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Elementary and Secondary Education, 1983; Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987; Digest of Education Statistics, 1981, 1981; and the Common Core of Data survey.

Table 2-3.--Percentage distribution of years of operation for private elementary-secondary schools, by orientation: 1985-86

Years	Total	Catholic	Other religious	Non-sectarian
10 or less	25.5	1.7	45.2	30.2
11-24	24.2	14.2	25.5	41.6
25 or more	50.1	84.1	29.3	28.2

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987 and 1985-86 Private School Study, unpublished tabulation, October 1986.

Table 2-4.--Number and percentage of private schools, by orientation and level: 1985-86

School Characteristics	Number of schools	Percent of total
Total	28,000	100
Orientation		
Catholic	10,200	36.4
Other religious	12,700	45.4
Nonsectarian	5,000	17.9
Level		
Elementary[1]	16,400	58.6
Secondary[2]	2,600	9.3
Combined[3]	5,600	20.0
Other[4]	3,300	11.8

[1] Refers to schools with no grade higher than 8.

[2] Refers to schools with no grade lower than 7.

[3] Refers to schools with other grade spans.

[4] Refers to "non-regular" schools including special education, alternative, and vocational schools.

NOTE: Detail may not add to totals and percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 2-5.--Number of Catholic schools, with Catholic schools as a percentage of all private schools: Selected years 1980-85.

Year	All Private	Catholic	Catholic schools as percentage of all private schools
1980-81	20,764	9,539	45.9
1983-84	27,700	9,394	33.9
1985-86	28,000	9,245	33.0

NOTE: Data reported by the National Catholic Educational Association and by the National Center for Education Statistics are not directly comparable because survey procedures and definitions differ.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Private Schools in American Education, 1981, and Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987; National Catholic Educational Association, A Statistical Report on Catholic Elementary and Secondary Schools for the Years 1967-68 to 1969-70, 1970.

Table 2-6.--Percentage distribution of school level by orientation: 1985-86

Level	Catholic	Other religious	Non-sectarian
Elementary[1]	81.4	51.2	34.9
Secondary[2]	15.6	5.3	6.5
Combined[3]	2.2	37.1	14.9
Other[4]	0.8	6.4	43.7

[1] Refers to schools with no grade higher than 8.

[2] Refers to schools with no grade lower than 7.

[3] Refers to schools with other grade spans.

[4] Refers to "non-regular" schools including special education, alternative, and vocational schools.

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study, unpublished tabulation, October, 1986.

Table 2-7.--Percentage distribution of school programs, by orientation: 1985-86

Program	Total	Catholic	Other religious	Non-sectarian
Regular Elementary-secondary	88.6	99.2	93.6	56.3
Special education	5.0	0.2	0.2	25.2
Vocational-technical	0.1	0.2	0.0	0.0
Alternative	6.3	0.3	6.3	18.4

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study, unpublished tabulation, October, 1986.

Table 2-8.--Private school tuition costs, by orientation and grade level: 1985-86

Orientation	Grade Level	Tuition Costs	
		Mean	Median
Total	Elementary[1]	$1,046	$ 774
	Secondary[2]	2,003	1,569
Church related	Elementary[1]	799	692
	Secondary[2]	1,618	1,508
Nonsectarian	Elementary[1]	2,709	2,282
	Secondary[2]	4,042	3,571

[1] Grades 1-8.

[2] Grades 9-12.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private School Tuition Patterns, 1985-86, 1987.

Table 2-9.--Percentage distribution of private schools, by school orientation and selected characteristics: 1978-79

School Type	Total[1]	Catholic	Other religious	Non-sectarian
TOTAL	100.0	100.0	100.0	100.0
Elementary and middle[2]	64.8	81.4	56.8	35.2
Secondary[3]	12.3	15.4	7.7	11.3
Combined elementary and secondary[4]	17.0	1.3	33.9	30.8
Special, vocational, or alternative[5]	5.8	1.8	1.4	22.7
TOTAL	100.0	100.0	100.0	100.0
Day only	93.2	97.7	93.3	81.7
Boarding only	2.0	0.6	1.3	6.4
Combined	4.8	1.7	5.4	11.9
TOTAL	100.0	100.0	100.0	100.0
Coeducational	93.2	91.5	96.0	93.3
Boys only	3.6	3.7	2.6	4.7
Girls only	3.2	4.8	1.4	2.0

[1] Total number of schools estimated to be 19,663.

[2] Schools which serve pupils in any combination of grades below grade 9, provided that there is at least one grade below grade 7 and one grade above grade 1.

[3] Schools which serve pupils in any combination of grades above 6, but not above grade 12.

[4] Schools which serve pupils in any combination of grades, provided there is at least one grade below grade 7 and one grade above grade 8.

[5] Schools which serve handicapped pupils or vocational pupils exclusively or provide programs as alternatives to the "regular" programs.

NOTE: Percents may not add to 100 due to rounding.

SOURCE: Computed from data presented in U.S. Department of Education, National Center for Education Statistics, Private Schools in American Education, 1981.

Table 2-10.--Ownership and administration of U.S. Catholic schools, by level: 1987-88

	Elementary Schools		Secondary Schools	
	Number	Percent	Number	Percent
Total	7,601	100.0	1,391	100.0
Parish	6,580	86.6	201	14.4
Interparish	575	7.6	163	11.7
Diocesan	154	2.0	478	34.4
Private	292	3.8	549	39.5

NOTE: Parish schools are under the control of a single parish; interparish schools are controlled by two or more parishes; diocesan schools are controlled by a diocesan office of education; and private schools are controlled by a religious order or a private corporation. Details may not add to totals due to rounding.

SOURCE: National Catholic Educational Association, United States Catholic Elementary and Secondary Schools 1987-1988, 1988.

CHAPTER 3

STUDENTS

NUMBER OF PRIVATE SCHOOL STUDENTS

The NCES 1985-86 Private School Study estimated student enrollments to be approximately 5.5 to 6 million students. These students accounted for about 12 to 13 percent of all elementary and secondary students in the United States (table 3-1). As was the case with the 1985-86 estimate of the number of private schools, the enrollment estimate for 1985-86 was re-estimated to incorporate the appropriate adjustments. The difference between the original and adjusted estimates of enrollments is related to differences in school and enrollment ratio estimators and the fact that the new schools tended to be smaller schools. As described for the school estimates, the original and adjusted enrollment estimates resulted in nearly identical estimates of percentages and means (U.S. Department of Education 1987).

Table 3-2 presents NCES private school enrollment estimates from 1980-81 through 1985-86. The percentage of all elementary and secondary school students who were enrolled in private schools fluctuated between 11 and 13 percent over this time period.

The Bureau of the Census publishes an independent set of annual estimates of private school enrollments. The October School Enrollment Supplement to the Current Population Survey (CPS) is used to collect annual data on school enrollment for both private and public schools. The survey data are collected from a nationally representative sample of households. Each October, CPS asks adults in approximately 60,000 households about the current educational participation of household members 3 years of age or older. For those enrolled in 12th grade or below, survey participants are asked whether the school attended is a public or private school (U.S. Department of Commerce, Bureau of the Census 1986).

In contrast, NCES collects data from institutions rather than households. In each of the private school data collection activities schools and in some cases, teachers were surveyed. These differences in data collection techniques, along with changes over time in the methodologies of the agencies, contributed to differences between NCES and CPS estimates.

NCES annual estimates for private school enrollment are on the order of 600,000 to 850,000 students higher than CPS estimates. NCES continues to study the factors that may contribute to these differences in the estimates and to approach the issue of enrollment trends with caution.

Enrollments for private and public schools, based on NCES estimates, are shown in Table 3-3. From 1980 through 1985, private school enrollments fluctuated around 5.5 million students; over this time period approximately three-quarters of all private school students were enrolled in grades kindergarten through 8. During this interval, approximately 40 million students were enrolled in public schools, and about two-thirds of the public school students were in the elementary grades.

CPS estimates for 1979-85 are shown in Table 3-4. Throughout this period, CPS and NCES estimates of public school enrollments were within 2 percent of each other; thus both estimates showed public school enrollments of approximately 40 million. CPS estimates for private school enrollments in the first half of the 1980s were on the order of 4.7 to 4.9 million.

CPS private school enrollments expressed as a percentage of all public and private enrollments provide a basis for evaluating the extent of student participation in private education in the United States. Estimates from 1979 through 1985 show that private school students composed about 10 to 11 percent of all elementary and secondary school students in the United States (table 3-5). NCES private school enrollment estimates from 1980 through 1985 are slightly higher, showing private school enrollments as about 11.5 to 13 percent of all elementary and secondary school enrollments.

ORIENTATION OF PRIVATE SCHOOL ENROLLMENTS

From 1980-81 through 1985-86, approximately 60 percent of all private school students attended Catholic schools, about 25 percent attended schools with other religious orientations, and the remaining 14 percent attended schools without a particular religious orientation (table 3-6).

When grade by grade enrollments were considered, Catholic schools accounted for the majority of enrollments at each grade level in grades 1 through 12 (figure 3-1). However, only 14 percent of all prekindergarten students attended Catholic schools, while 47 percent were enrolled in other religious schools and 39 percent attended nonsectarian schools. Of the kindergarten students, 46 percent attended Catholic schools, 37 percent attended other religious schools, and 17 percent attended nonsectarian schools.

An examination of the grade-by-grade distribution of enrollments within each school orientation reveals that the most obvious aggregate differences were a result of differences in enrollments at the youngest ages. Preschool enrollment accounted for a significant proportion of enrollment in nonsectarian schools (table 3-7). About 24 percent of all students in nonsectarian schools and 21 percent of all students in other religious schools were enrolled in prekindergarten and kindergarten programs; by comparison, prekindergarten enrollment accounted for only 1 percent of all Catholic school enrollment, and kindergarten enrollment accounted for only 6 percent. (The kindergarten and preschool enrollments are not complete estimates, since schools with only preschool and/or kindergarten were excluded from this survey and many private schools that had these grades did not have a first grade or higher.)

PRIVATE SCHOOL SIZE

Although the majority of private school students continued to be enrolled in Catholic schools, data in the preceding chapter showed that less than half (36 percent reported in table 2-4) of all private schools were Catholic. This difference was due to the fact that Catholic schools tended to be larger than other private schools. In fact, the 1985-86 mean enrollment per school was 363 for Catholic schools, compared to 174 for nonsectarian schools and 142 for other religious schools (table 3-8).

In general, private schools tended to be small with an overall mean enrollment of 234, compared to a mean enrollment of 482 in public schools in 1984-85 (U.S. Department of Education 1988). Overall, 50 percent of private schools had fewer than 150 students (figure 3-2). Only 7 percent had 600 students or more. Also, 25 percent of private schools had been in operation 10 years or less and reported a mean enrollment of 105; this was less than half the mean enrollment of schools that had been operating 11 to 24 years (251) and of those established 25 or more years ago (290) (figure 3-3).

GEOGRAPHY OF PRIVATE SCHOOL ENROLLMENTS

Table 3-9 reports CPS data for the percentage of all students in grades 1 through 12 attending private schools in each region of the country and in urban, suburban, and nonmetropolitan locations from 1979 through 1985. CPS data show that in 1985 private school students accounted for 10.5 percent of all elementary and secondary school enrollments nationwide; by comparison, private school enrollments were 14.2 percent in the Northeast, 12.4 percent in the North Central region, and 8.2 percent in both the South and West. The data for metropolitan status show that about 14 percent of the students in urban areas and about 12 percent of the students in surburban areas attended private schools, compared to just over 6 percent of the students in nonmetropolitan areas.

Data on private school enrollments by orientation revealed that approximately 60 percent of all private school students attended Catholic schools. Recent data from the National Catholic Educational Association (NCEA) show that one-half of all Catholic school students attend school in 20 Catholic dioceses--administrative regions which generally cover a major city and its surrounding suburbs. For 1987-88, the NCEA calculates the largest diocesan enrollment to be in Chicago (156,500). The 20 largest diocesan enrollments are presented in table 3-10. Only one of these (Los Angeles) is in the Western States.

STUDENT CHARACTERISTICS

Race/ethnicity

Student populations served by public and private schools differed on a number of dimensions, including race and ethnicity. Table 3-11 shows the proportions of all white, black and Hispanic school children in the United States who attended private schools. The Current Population Survey estimates that 10.5 percent of all students enrolled in grades 1 through 12 attended private schools in 1985. The rate was 11.9 percent for white students, 6.7 percent for Hispanic students, and 3.7 percent for black students.

Minority enrollments in public and private schools are reported in table 3-12. Although the enrollment of minority students in private schools was proportionately less than their occurrence in the total student population, only 12 percent of all private schools had no minority students. The comparable estimate for public schools was 9 percent. An additional 27 percent of all private schools and 37 percent of all public schools had minority enrollments in the range of 1 to 4 percent. If the schools with no minority enrollments are combined with those with minority enrollments of less then 5 percent, 39 percent of private schools and 46 percent of public schools had minority enrollments of less than 5 percent. In contrast, about one-fifth of both public and private schools had minority enrollments of 50 percent or more.

Coleman and his colleagues (1982), computed an index of racial segregation for individual high schools, using data from the 1980 High School and Beyond study of public and private school students in the sophomore and senior years. They concluded that "blacks and whites are substantially less segregated in the private sector than in the public sector" (page 34). And, that within the Catholic sector, "the internal segregation ... is less than that in the public sector--substantially so for blacks and whites, slightly so for Hispanics and Anglos" (page 34). No comparable data on elementary schools are currently available.

The National Catholic Educational Association (NCEA 1988) reported a significant increase between 1970-71 and 1987-88 in the percent of all students who are minority. Comparing 1970-71 to 1987-88 Catholic school enrollment data, the percentage of all students who are black increased from 5 to 9 percent, while Hispanic enrollment increased from 5 to 10 percent, and Asian-American enrollment increased from less than a percent to 3 percent. During the same period, enrollment by white students decreased from 89 to 78 percent. The National Association of Independent Schools (NAIS) reported an increase among its more than 800 member schools from 9 percent minority in 1981 to 12 percent in 1987 (figure 3-4) (NAIS 1988). In particular, NAIS reported a 13 percent increase in black student enrollments, a 7 percent increase in Hispanic student enrollments, and a 50 percent increase in Asian-American student enrollments between 1981 and 1985 (U.S. Department of Education 1986).

Family Income, Education, and Occupational Status

On average, students attending private schools came from families with higher incomes than public school students; however, about one-third to one-half of all students, regardless of school sector and orientation, came from middle income families (figure 3-5). In 1985 the percent of students from families with incomes between $15,000 and $34,999 was 42 percent for public school students, 47 percent for private school students in church related schools, and 32 percent for private school students in nonsectarian schools. About one tenth of private school students came from families with incomes below $15,000, compared with about one-third of public school students. About 10 percent of public school students came from families with incomes of $50,000 or more; by comparison, twice the percent for students in church related schools (20 percent), and nearly 4 times the percent for students in nonsectarian schools (38 percent) came from families with incomes of $50,000 or more. Income differences existed within types of private schools; 58 percent of the students in nonsectarian schools had family incomes of $35,000 and higher, compared with 41 percent in religious schools.

Private school attendance increases with family income; thus, lower family incomes among blacks and Hispanics are one factor contributing to lower private school attendance among these groups of students (table 3-13). While enrollment rates for whites and Hispanics did not differ significantly in 1985, there were differences in private school enrollment rates between blacks and whites.

The educational attainment of parents also varied by the type of school the students attended (figure 3-6). Relatively more public than private school students had parents who had not completed high school (25 percent versus 8 and 10 percent); and, conversely, more private than public school students had parents who had completed 4 or more years of college (30 and 57 percent versus 19 percent). As with family income, the educational attainment of parents of students in nonsectarian schools was higher than that of students attending religious schools (57 percent versus about 30 percent).

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Table 3-1.--Private and public elementary-secondary school enrollment in the United States: 1985-86

(In thousands)

			Private	
	Total	Public	Number	Percent of total
Private schools (unadjusted)	45,497	39,515	5,982	13.2
Private schools (adjusted)	45,072	39,515	5,557	12.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 3-2.--National Center for Education Statistics estimates of private school enrollment as a percentage of total U.S. elementary and secondary enrollment: Selected years 1980-1985

Year	Total elementary and secondary enrollment	Private school enrollment	Percent private
	(In thousands)		
1980-81	46,318	5,331	11.5
1983-84	45,067	5,715	12.7
1985-86	45,113	*5,600	12.4

*Estimated

SOURCES: U.S. Department of Education, National Center for Education Statistics, Statistics of State School Systems; Statistics of Public Elementary and Secondary School Systems; Statistics of Nonpublic Elementary and Secondary Schools; and the Common Core of Data. Adapted from table in Digest of Education Statistics 1987.

Table 3-3.--U.S. Department of Education estimates of enrollment in public and private elementary and secondary schools: Selected years 1980-1985

(In thousands)

		Public Schools			Private Schools		
Years	Total elementary & secondary	Total enrolled	K-8	9-12	Total enrolled	K-8	9-12
Fall 1980	46,318	40,987	27,674	13,313	5,331	3,992	1,339
Fall 1983	45,067	39,352	26,997	12,355	5,715	4,415	1,400
Fall 1985	45,113	39,513	27,047	12,467	*5,600	*4,300	*1,300

*Estimated

NOTE: Elementary and secondary enrollments include pupils in local and public school systems and in most private schools (religiously affiliated and nonsectarian), but generally excludes pupils in subcollegiate departments of institutions of higher education, residential schools for exceptional children, and Federal schools. Elementary enrollment includes a relatively small number of prekindergarten pupils. Detail may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Statistics of State School Systems; Statistics of Public Elementary and Secondary School Systems; Statistics of Nonpublic Elementary and Secondary Schools; and Common Core of Data. Adapted from table in Digest of Education Statistics 1987.

Table 3-4.--Bureau of the Census estimates of public and private school enrollment, kindergarten through grade 12 (K-12): Selected years 1979-85

(In thousands)

	Public school			Private school		
Year	K-12	K-8	9-12	K-12	K-8	9-12
1979	41,343	27,349	13,994	4,663	3,541	1,122
1980	--	27,088	--	--	--	--
1981	40,897	27,374	13,523	4,701	3,582	1,119
1983	39,701	26,909	12,792	4,868	3,650	1,218
1985	39,788	27,024	12,764	4,872	3,657	1,215

-- Not available.

NOTE: Detail may not add to totals because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, "School Enrollment Social and Economic Characteristics of Students: October 1984 and 1985", Current Population Reports, Series P-20, no. 426 (Washington, DC: 1988).

Table 3-5.--Private school enrollment as a percentage of total public and private school enrollments, Bureau of Census and National Center for Education Statistics estimates compared: Selected years 1979-85.

	National Center for Education Statistics			Bureau of Census		
Year	Total K-12	K-8	9-12	Total K-12	K-8	9-12
1979	10.7	11.7	8.7	10.1	11.5	7.4
1980	11.5	12.6	9.1	--	11.5	--
1981	12.1	13.1	9.8	10.3	11.6	7.6
1983	12.7	13.8	10.2	10.9	11.9	8.7
1985	12.4	13.7	9.4	10.9	11.9	8.7

-- Not available

SOURCE: U.S. Department of Education, National Center for Education Statistics. Statistics of State School Systems; Statistics of Public Elementary and Secondary School Systems; Statistics of Nonpublic Elementary and Secondary Schools; and Common Core of Data. Adapted from table in Digest of Education Statistics, 1987.

Table 3-6.--Private school enrollments in thousands, by orientation: Selected years 1980-85

Year	Total private enrollment	Catholic Enrollment	Catholic Percent of all private	Other religious Enrollment	Other religious Percent of all private	Nonsectarian Enrollment	Nonsectarian Percent of all private	Percent in Religious schools*
1980-81	5,331	3,019	56.6	1,106	20.7	906	17.0	84.0
1983-84	5,700	3,200	56.1	1,400	24.6	1,200	21.1	80.7
1985-86	5,982	3,599	60.2	1,526	25.5	858	14.3	85.7

*Religious school percentage combines Catholic and other religious schools.

NOTE: Total private enrollment figures do not fully correspond with those presented in figures 3-3 and 3-4. Here, 1980 figures do not take into account the expanded private school universe list used in other U.S. Department of Education reports.

SOURCE: U.S. Departemnt of Education, National Center for Education Statistics; Digest of Education Statistics, 1980. Digest of Education Statistics, 1982; adapted from Table 2-3 in U.S. Department of Education, Private Elementary and Secondary Education, July 1983; Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study , 1987.

Table 3-7.--Percentage of private school enrollment, by orientation and grade: 1985-86

Grade	Orientation		
	Catholic	Other religious	Non-sectarian
Total	100	100	100
Prekindergarten	1	10	15
Kindergarten	6	11	9
1st grade	8	9	7
2nd grade	8	8	6
3rd grade	8	8	6
4th grade	8	7	5
5th grade	8	7	5
6th grade	7	7	5
7th grade	7	6	6
8th grade	7	6	7
9th grade	8	6	8
10th grade	8	5	8
11th grade	8	5	7
12th grade	7	4	7

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 3-8.--Mean enrollment, by private school orientation: Fall 1985-86

	Mean enrollment
Total	234
Catholic	363
Other religious	142
Nonsectarian	174

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 3-9.--Percentage of all students attending private schools, by region and metropolitan status: Selected years 1979-85

Metropolitan status and region	1979	1982	1985
United States	9.8	10.0	10.5
Region			
Northeast	12.5	13.3	14.2
North Central	11.5	11.7	12.4
South	7.8	7.4	8.2
West	7.9	8.4	8.2
Metropolitian status			
Central City	16.0	13.7	13.8
Suburb	10.0	11.0	11.9
Nonmetropolitan	5.0	5.9	6.2

NOTE: Percentages are of October enrollment, grades 1-12.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, "Private School Enrollment, Tuition, and Enrollment Trends: October 1979", Series P-23, no.121, 1982, and Bianchi, S., "Private School Enrollment: Trends and Debates", Research in Sociology of Education and Socialization, 3, 1982.

Table 3-10.--Catholic dioceses with the largest Catholic school enrollments: 1987-88

Diocese	Enrollment (K-12)
Chicago	156,500
Philadelphia	142,100
New York	110,800
Los Angeles	104,000
Brooklyn	88,900
Cleveland	68,800
Detroit	67,900
Newark	64,200
St. Louis	60,900
Boston	58,900
New Orleans	54,800
Cincinnati	51,800
Milwaukee	43,300
Rockville Centre, NY	38,900
Pittsburgh	38,200
Baltimore	34,100
St. Paul/Minneapolis	33,500
Buffalo	31,800
Washington, D.C.	31,600
Toledo	30,800

SOURCE: National Catholic Educational Association, United States Catholic Elementary and Secondary Schools 1987-1988, 1988.

Table 3-11.--Percentage of students enrolled in private schools by control of school and race/ethnicity: October, 1985.

Race and ethnicity	Total private[1]	Church-related	Nonchurch related
Total students	10.5	8.5	1.4
Black students	3.7	2.4	.7
Hispanic students[2]	6.7	6.1	.3
White students	11.9	9.8	1.5

[1] Includes some students for whom control of the private school was not reported.

[2] Hispanics may be of any race.

NOTE: Percentages are of October enrollment, grades 1-12.

SOURCE: U.S. Department of Commerce, Bureau of the Census, "October 1985 School Enrollment Supplement" to Current Population as reported in U.S. Department of Education, National Center for Education Statistics, The Condition of Education, 1986.

Table 3-12.--Percentage of minority enrollment in public and private schools: Public schools 1984-85 and private schools 1985-86

Percent minority	Private schools	Public schools
0	12.1	8.5
1-4	26.8	37.4
25-14	22.4	14.0
15-24	10.6	8.7
25-49	10.0	14.0
50+	18.0	17.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study and The 1985 Public School Survey, unpublished tabulation, 1989.

Table 3-13.--Percentage of children in grades 1-12 enrolled in private schools, by race and ethnicity, control of school, and family income: October 1985

	All children			White		
Family Income	Total private[1]	Church related	Non-sectarian	Total private[1]	Church related	Non-sectarian
Total[2]	10.5	8.5	1.4	11.9	9.8	1.5
Less than $7,500	3.5	2.8	.5	4.9	4.1	.5
$7,500 to $14,999	5.7	4.7	.4	6.7	5.7	.5
$15,000 to $24,999	8.6	7.2	.8	9.4	8.2	.7
$25,0020 to $34,999	13.1	11.0	1.5	3.2	11.3	1.5
$35,000 to $49,999	13.8	11.8	1.6	14.5	12.4	1.7
$50,000 and over	20.0	14.8	4.3	20.1	15.1	4.2

	Black			Hispanic[3]		
Family Income	Total private[1]	Church related	Non-sectarian	Total private[1]	Church related	Non-sectarian
Total[2]	3.7	2.4	.7	6.7	6.1	.3
Less than $7,500	1.5	.8	.4	3.0	2.4	.6
$7,500 to $14,999	2.7	1.8	.2	5.1	5.1	.0
$15,000 to $24,999	3.8	2.5	.7	8.0	7.1	.2
$25,000 to $34,999	8.4	6.3	.8	10.7	9.1	1.1
$35,000 to $49,999	7.4	4.5	1.9	13.1	13.1	.0
$50,000 and over	14.7	9.3	4.7	20.2	20.2	.0

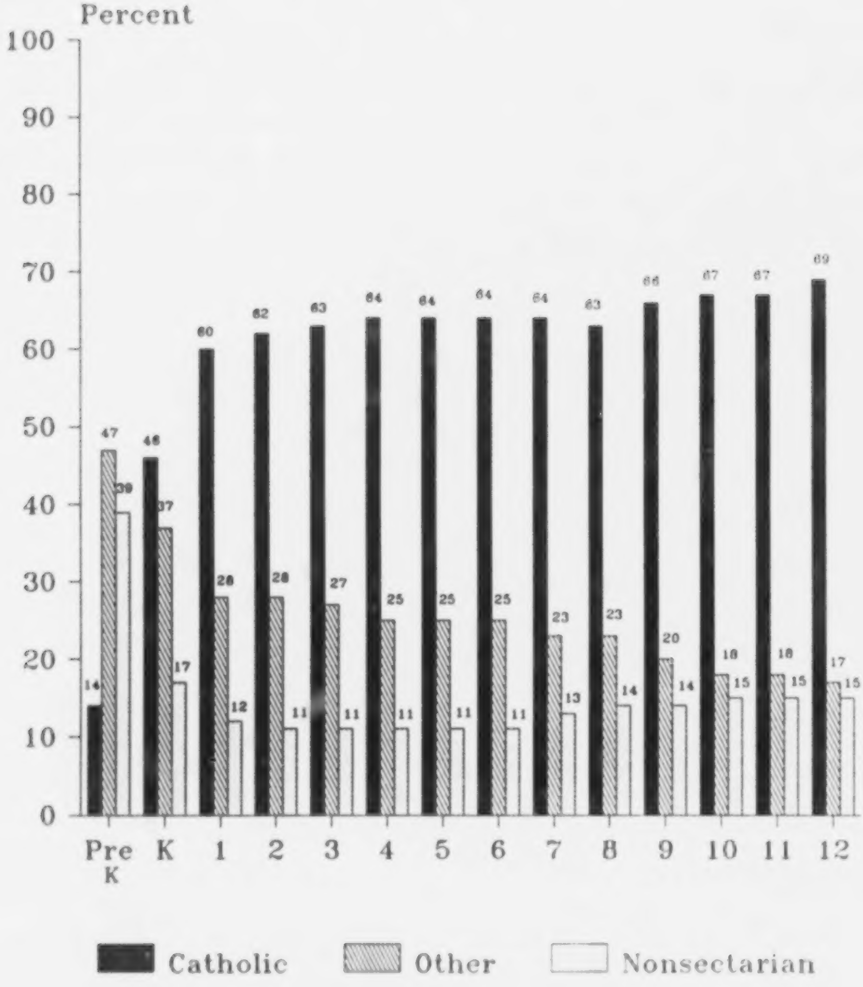
[1] Includes some students for whom control of the private school was not reported.

[2] Includes some students for whom family income was not reported.

[3] Hispanics may be of any race.

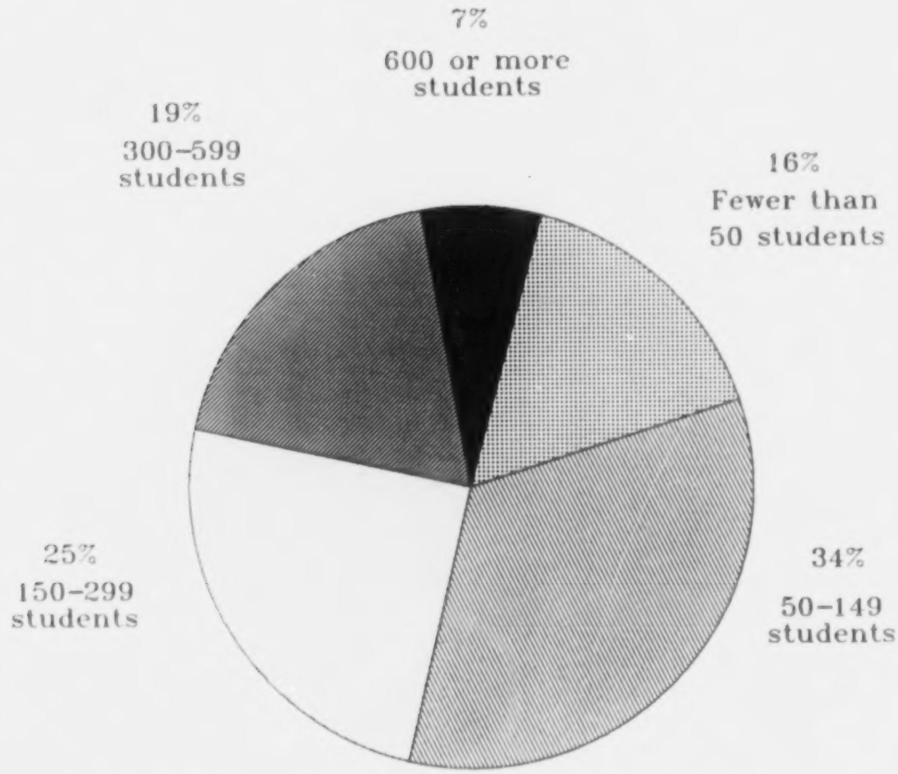
SOURCE: U.S. Department of Commerce, Bureau of the Census, "October 1985 School Enrollment Supplement" to Current Population Survey, unpublished tabulations.

Figure 3-1.--Percentages of all private school students enrolled in Catholic, other religious, or nonsectarian schools at each grade level: 1985-86



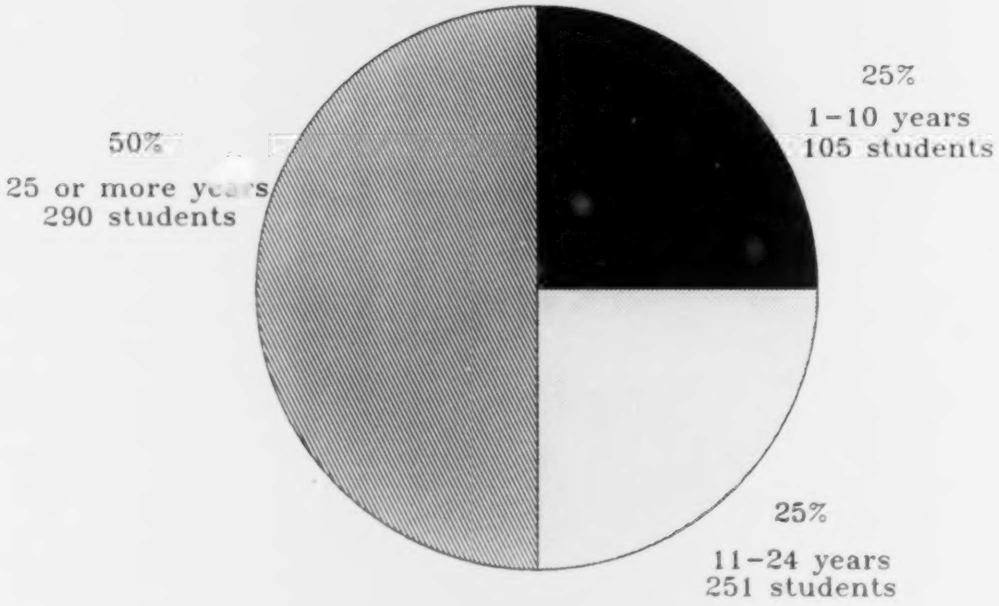
SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Figure 3-2.--Percentage of private schools, by size of school: 1985-86



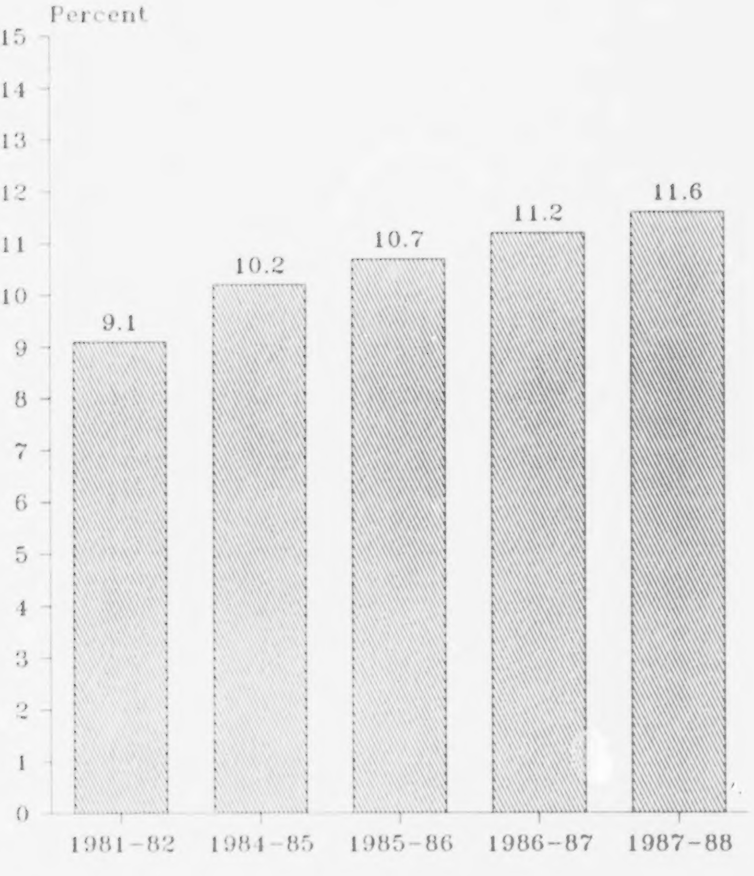
SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Figure 3–3.––Percentage of private schools and mean enrollment by number of years of operation: 1985–86



SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985–86 Private School Study, 1987

Figure 3-4.-- Percentages of minority students in National Association of Independent Schools (NAIS) member schools: 1981-82 to 1987-88



SOURCE: National Association of Independent Schools, NAIS Statistics Spring 1988: Enrollment-Staff-Minorities 1987-88, Financial Aid-Financial Operation 1986-87.

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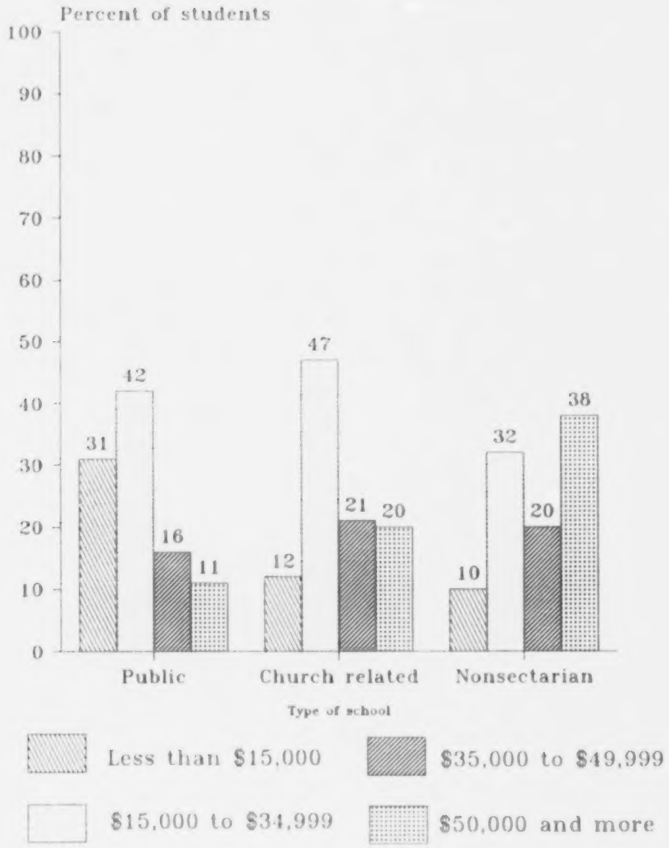
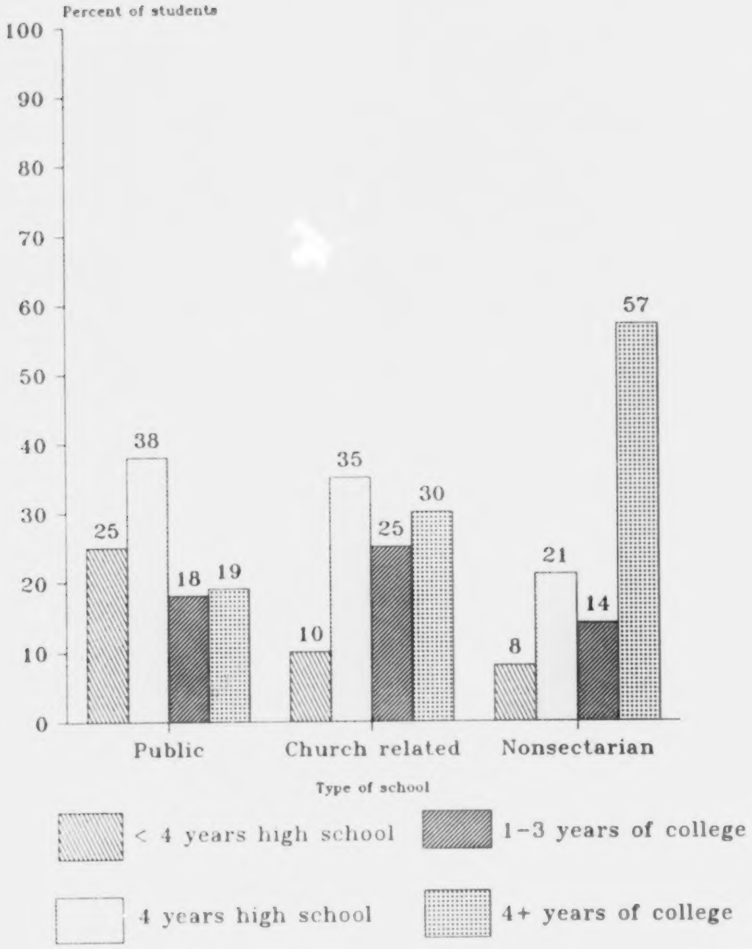
Figure 3-5.--Percentage of elementary and secondary students by sector and family income: October 1985



SOURCE: U.S. Department of Commerce, Bureau of the Census, 1985 October School Enrollment Supplement to the Current Population Survey, unpublished tabulations, 1986. Private School enrollment and tuition trends. In U.S. Department of Education, National Center for Education Statistics, The Condition of Education, 1986.

Figure 3-6.--Percentage of elementary and secondary students, by sector and parental education: 1985



SOURCE: U.S. Department of Commerce, Bureau of the Census, 1985 October School Enrollment Supplement to the Current Population Survey, unpublished tabulations, 1986. Private School enrollment and tuition trends. In U.S. Department of Education, National Center for Education Statistics, The Condition of Education 1986.

CHAPTER 4

TEACHERS

NUMBER OF TEACHERS

Private schools in the United States employed a total of 404,000 full- and part-time teachers in 1985-86; these teachers represent 355,000 full-time equivalent teachers. When the private school teaching force is compared with the total number of elementary and secondary school teachers, the data show that 13.9 percent of all full-time equivalent teachers are employed in private schools (table 4-1). While the 1980-85 period saw an 18 percent increase in the number of private school teachers (from 301,000 to 355,000), the percentage of all teachers employed in private schools varied between 10 and 14 percent.

Forty-six percent of all full- and part-time private school teachers were employed in Catholic schools, compared with 31 percent in other religious schools, and 23 percent in nonsectarian schools (table 4-2). When level of teaching assignment was considered, data from the 1985-86 Private School Survey showed 47 percent of teachers employed at the elementary school level, 20 percent at the secondary level, 24 percent in combined schools, and 9 percent in schools with a focus on alternative education, vocational education, or special education.

TEACHING STATUS

In 1985-86, 83 percent of all private school teachers taught full time and the remaining 17 percent were part-time teachers (table 4-3). In public schools, 88 percent of the teaching force were full-time teachers and 12 percent were part-time teachers. Part-time teachers composed a larger share of the teaching force in other religious schools (23 percent) and nonsectarian schools (22 percent) than in Catholic schools (11 percent). Smaller schools were more likely to employ part-time teachers than larger schools, with 24 percent of part-time teachers in schools with less than 50 students and 13 percent of part-time teachers in schools with 600 or more students.

SCHOOL LABOR FORCE

Teachers composed the largest share of the labor force in private schools; however, their efforts were often complemented by a variety of other employees such as principals or assistant principals, librarians, guidance counselors, teacher aides, other professional staff, and nonprofessional staff. Not all private schools employ staff in each of these career groups. Most schools (94 percent) have a principal, assistant principal, or both; 82 percent employ nonprofessional support staff; approximately two-fifths of all private schools employed librarians (44 percent), teacher aides (43 percent), or other professional staff (40 percent); and only 30 percent had guidance counselors (table 4-4).

For staff other than teachers and principals, the availability of types of staff varied by school characteristics (table 4-4). Elementary schools were more likely to use teacher aides, while secondary schools were more likely to employ guidance counselors and librarians. As the school size increased, the percentage of schools with guidance counselors, librarians, and other professional staff and nonprofessional staff increased as well. When orientation was considered, proportionately more Catholic schools than nonsectarian or other religious schools had librarians, and nonsectarian schools employed teacher aides and other professional staff more frequently than Catholic schools.

Since not all private schools employed staff in each of these career groups, the mean full-time equivalent estimate for each career group was based only on schools that reported having that type of staff. Thus, compared to 13.9 full-time equivalent teachers per school, there were, on average, 4.8 full-time equivalent nonprofessional support staff, 3.5 full-time equivalent teacher aides, and 1.3 to 1.0 full-time equivalents for principals and assistant principals, guidance counselors, and librarians (table 4-5).

Within each career group, the mean full-time equivalent staff increased as the size of school increased. Schools that were in existence 25 years or more also had more staff than schools in existence 10 years or less (table 4-5). On average, the size of the teacher aide staff, other professional staff, and nonprofessional staff tended to be larger in nonsectarian schools when compared with religiously oriented schools. And, although proportionately more elementary schools employed teacher aides, when only the subset of those schools actually employing teacher aides was considered, the average number employed at the secondary level exceeded the average number employed at the elementary level.

About three out of four (72 percent) private schools received assistance from unpaid volunteers (table 4-6). Data from the 1985-86 survey showed that Catholic and other religious schools were more likely to benefit from volunteer support than nonsectarian schools, with 84 percent of Catholic schools and 72 percent of other religious schools using volunteers compared with only 45 percent in nonsectarian schools. Similarly, elementary and combined schools were more likely to have volunteers than secondary and other specialized schools (table 4-6). In private schools, adult volunteer assistance was most common in the areas of instructional support (47 percent) and extracurricular support (46 percent) (U.S. Department of Education 1987).

DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

Traditionally, elementary and secondary teaching has been a female-dominated profession. In 1985-86, private schools had more female than male teachers (76 percent versus 24 percent); this pattern was repeated in each of the three groups of private schools (table 4-7). While the distribution was not identical, the pattern in public schools was similar (68 percent versus 32 percent). These patterns changed when school level was considered. At the elementary school level, only 10 percent of all private school teachers were male (table 4-7). The proportion of male teachers increased to 25 percent in other specialized private schools and to 30 percent in combined elementary and secondary private schools. And, among secondary teachers there was an equal distribution of males and females (49 percent versus 51 percent). In the aggregate, males in the private school teaching force were more likely to teach at the secondary level; 41 percent of all male private school teachers were employed in secondary schools, compared with 14 percent of all female private school teachers (data not shown in table).

Ninety-two percent of private school teachers reporting in the 1985-86 Private School Survey were white. An estimated 4 percent were black, 3 percent were Hispanic, and 1 percent reported a race/ethnicity group other than white, black, or Hispanic (table 4-8). Comparable data for public schools (1983-84) show that 86 percent of the teachers were white, 10 percent were black, 4 percent were Hispanic, and 1 percent reported some other race or ethnicity group.

The mean age of all private school teachers was 38 years, compared with a mean age of 40 for public school teachers. An examination of age-specific data reveals that 42 percent of all private school teachers were under age 35, compared with 31 percent of all public school teachers (table 4-9).

TEACHER EXPERIENCE AND TRAINING

Experience

Almost one-half (48 percent) of all private school teachers reported 10 or more years of teaching experience, compared with two-thirds (67 percent) of all public school teachers (table 4-10). In private schools, the remaining teachers were almost equally divided between teachers with less than 5 years teaching experience (25 percent) and teachers with 5 to 9 years teaching experience (27 percent). Fifty-five percent of Catholic school teachers, 42 percent of teachers in other religious schools, and 44 percent of teachers in nonsectarian schools reported 10 or more years experience. As was the case in the aggregate, the remaining private school teachers within each orientation group were nearly equally divided between teachers with less than 5 years of experience and teachers with 5 to 9 years of experience.

Fifty-nine percent of private school teachers at the secondary level reported 10 or more years experience; this percentage is higher than those reported in all other levels of private schools (table 4-10). Some 41 percent of private school teachers in other specialized schools reported less than 5 years experience, compared with one-quarter of all private school teachers in combined elementary and secondary schools and one-fifth of the private school teachers at the secondary level.

The percentage of teachers with 10 or more years experience increased with school size (from 22 percent in schools with fewer than 50 students to 63 percent in schools with 600 or more students) and years of operation (from 26 percent in schools of 10 or fewer years to 54 percent in schools with 25 or more years) (table 4-10).

Training

About 95 percent of all private school teachers and 99 percent of all public school teachers held at least a bachelor's degree (table 4-11). In private schools, approximately two-thirds of the degreed teachers held only a bachelor's degree, compared with about one-third with advanced degrees. The percentage distribution of private school teachers holding bachelor's and advanced degrees was similar in each orientation group. In public schools, about one-half of the degreed teachers held bachelor's degrees and about one-half held advanced degrees.

Data from the 1985-86 Private School Study provide a basis for describing private school teachers by level of degree, as well as where they teach. Considering first the small percentage of teachers who reported academic attainment below the bachelor's degree level, 2 percent of the male teachers and 6 percent of the female teachers were in this group (table 4-11). Among teachers with less than 5 years of teaching experience, 8 percent had less than a bachelor's degree, compared with only 4 percent of teachers with 10 or more years teaching experience. When level of teaching assignment was considered, the smallest percentage of teachers without bachelor's degrees was reported for secondary school teachers (1 percent), with 6 percent for teachers in elementary schools and in other specialized schools, and 8 percent for teachers in combined elementary and secondary school. The percentage of teachers without bachelor's degrees was smallest among teachers in large private schools (e.g., 2 percent in schools with 600 or more students) and largest in smaller private schools (e.g., 15 percent in schools with fewer than 50 students). And only 4 percent of the teachers in schools in operation 25 years or more did not have bachelor's degrees, compared with 9 percent of the teachers in schools in operation 10 years or less.

Male teachers (45 percent) were more likely than female teachers (26 percent) to hold advanced degrees (table 4-11). The percentage of teachers holding advanced degrees increased with experience, from 13 percent among teachers with less than 5 years of teaching experience to 43 percent among teachers with 10 or more years of teaching experience. The largest percentage of private school teachers with advanced degrees was reported for secondary school teachers at 51 percent, with 20 percent of elementary school teachers, 31 percent of teachers in other specialized schools, and 34 percent of teachers in combined elementary and secondary schools reporting advanced degrees. Some of the difference in degree groups between school levels might be accounted for by the fact that male teachers were more likely than female teachers to teach in secondary schools (41 percent of male teachers versus 14 percent of female teachers) (U.S. Department of Education 1987). The percentage of teachers with advanced degrees increased with school size and years the school was in operation.

The 1985-86 data showed that education was the most common undergraduate major among private school teachers, with 51 percent majoring in education alone and another 12 percent majoring in education and another subject (table 4-12). The percentage of education majors was higher among elementary school teachers than secondary school teachers (60 percent versus 37 percent), and more females than males majored in education (55 percent versus 37 percent).

About one-half (53 percent) of all private school teachers participated in additional training in the 1984-85 school year (U.S. Department of Education 1987). Fifty-seven percent of these teachers enrolled in college courses, 50 percent took inservice training and 20 percent took some other type of training. About 80 percent of the teachers who took additional training did so to maintain and improve their skills. Most of these teachers, 71 percent of all teachers taking additional training, took it in a substantive field other than education.

Coursework

Data from 1985-86 revealed considerable variability in the number of earned undergraduate and graduate credit hours in the subjects taught by private school teachers (table 4-13). At least two-thirds of the teachers of foreign languages, social science, and English and language arts had completed 13 or more credit hours. And, more than half of the teachers of business science, art and music, and biological sciences had completed 13 or more credit hours. However, the percentage of teachers with fewer than 4 credit hours in an assigned subject area was 51 percent for computer science, 30 percent for business science, 25 percent for physical science, and between 10 and 20 percent for mathematics, biological sciences, and art and music.

Education training programs also offer courses in general education that are important in learning to communicate the knowledge obtained in specific subject matter courses. In addition, the focus of an individual teacher's training will vary as a result of the level and subjects in which the teacher is preparing to teach. Thus, figure 4-1 displays data for the percentage of teachers with 13 or more credit hours in general education and selected subject areas relevant to the teacher's assignment. These data are restricted to data for teachers in regular elementary, secondary, or combined schools and are presented separately for teachers in self-contained classes for grades 1 through 6, and for the subject matter teachers in grades 7 through 12. At the elementary level, 72 percent of all teachers earned at least 13 credit hours in general education; for specific subject areas, these teachers had the greatest number of credit hours in English and language arts and social sciences. In grades 7 through 12, teachers of English and language arts, social science, mathematics, and sciences earned the greatest number of credit hours, apart from general education, in the subject assigned.

Certification

The majority of States have mandated teacher certification programs for public school teachers; thus it was not surprising that a 1984 survey of secondary school teachers, conducted as a component of the NCES "High School and Beyond Survey," found that 93 percent of all secondary public school teachers had a State teaching certificate (table 4-14). Although private schools are not included in mandatory State certification programs, 64 percent of Catholic secondary school teachers and 62 percent of all secondary school teachers in other private schools held State teaching certificates. The same survey included data on teacher tenure that showed that while 77 percent of public school teachers in secondary schools had tenure, only 30 percent of Catholic school teachers and 21 percent of other private school teachers at the secondary level were tenured.

TEACHER COMPENSATION

Teacher salaries for full-time teachers were lower in private schools than public schools. In 1985-86 the average base salary for all private school teachers was $14,400 (table 4-15). The 1984-85 public school base teacher salary, adjusted to 1985-86 dollars, was $24,335. This $9,935 difference in base salaries accounted for 41 percent of the public school salary, or in other words, the average base salary for private school teachers was only 59 percent of the average base salary for teachers in public schools. Although the average base salary of $16,779 for teachers in nonsectarian private schools was higher than the average base salaries for teachers in Catholic schools ($14,036) and other religious schools ($13,764), it was lower than the average public school base salary.

The distribution of full-time teachers' salaries shows that in 1985-86 more than half (58 percent) of all full-time teachers in private schools reported base salaries less than $15,000; one year earlier, in 1984-85, only 6 percent of the public school teachers reported base salaries in this range (table 4-16). Sixty-one percent of public school teachers reported base salaries between $15,000 and $24,999, compared with 37 percent of private school teachers. Another 33 percent of the public school teachers reported salaries of $25,000 or more, and only 5 percent of private school teachers reported base salaries at this level.

The salary distribution by years of experience suggests two factors that seem to contribute to these differences in public and private school base salaries (table 4-17). First, if one assumes that, on average, age and experience are associated, and since private school teachers as a group tend to be younger than public school teachers, more private school teachers are near the lower end of the salary distribution. Second, the public and private school salary distributions show that salaries peak sooner for private school teachers than they peak for public school teachers (16-20 years versus 26-30 years), and the absolute size of the differential widens with increasing years of experience (Williams 1989). Thus, the 38 percent of the private school teachers who are age 40 or above also contribute to this salary gap. This last group is further confounded by the fact that Catholic teachers who are members of religious orders "...tend to be older and have logged substantially more teaching time on average than higher salaried lay teachers." (Williams 1989).

TEACHER TIME ALLOCATION

Private and public school teachers both reported, on average, a total of 50 hours a week spent on school-related activities (table 4-18). Approximately three-quarters of this time occurred during required school hours (74 percent for private school teachers and 78 percent for public school teachers). One-half of the time teachers reported as having spent on school-related work was spent in the classroom teaching. The other half of the teachers' time was evenly divided between required school hours and time spent outside required school hours. This out of classroom time was spent primarily in preparation for teaching and in student advising, counseling, and extracurricular school activities. In fact, private school teachers spent about 30 percent of their time on teaching preparations and about 10 percent on various student activities.

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U.S. Department of Education. Office of Educational Research and Improvement. National Center for Education Statistics. "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-1986," Survey Report. Jeffrey Williams. Washington, DC: 1989.

Table 4-1.--Teachers in elementary and secondary schools, by control of institution: 1980 to 1985

Type of control	Fall 1980	Fall 1981	Fall 1982	Fall 1983	Fall 1984	Fall 1985
			(In thousands)			
Total[1]	2,485	2,438	2,446	2,463	2,508	2,562
Public schools	2,184	2,125	2,121	2,126	2,168	2,207
Private schools	301	[2]313	[2]325	337	[2]340	355
			(Percent)			
Private school teachers as a percentage of total	12.1	12.8	13.3	13.7	13.6	13.9

[1] Includes teachers in local public school systems and in most private schools (religiously affiliated and nonsectarian). Excludes subcollegiate departments or institutions of higher education, residential schools for exceptional children, and Federal schools. Teachers are reported in terms of full-time equivalents.

[2] Estimated on the basis of enrollment.

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data and Private School Surveys; and unpublished projections, as reported in Digest of Education Statistics, 1988.

Table 4-2.--Number of teachers in private schools, by school characteristics: 1985-86

School characteristics	Full- and part-time teachers[1] Number (in thousands)	Percent
Total	404	100
Orientation		
Catholic	185	46
Other religious	127	31
Nonsectarian	92	23
Type/level[2]		
Elementary	190	47
Secondary	83	20
Combined	96	24
Other	35	9
Size		
Fewer than 50 students	17	4
50 - 149	91	23
150 - 299	95	24
300 - 599	118	29
600 or more	83	20

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[1] Principals' reports of the number of teachers on or about October 1, 1985.

[2] Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

NOTE: Detail may not add to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-3.--Percentage of full- and part-time teachers, by sector and selected private school characteristics: Public schools 1984-85 and private schools 1985-86

School characteristics	Full-time	Part-time
Sector		
Public	88	12
Private	83	17
Orientation		
Catholic	89	11
Other religious	77	23
Nonsectarian	78	22
Size		
Fewer than 50 students	76	24
50-149	78	22
150-299	83	17
300-599	85	15
600 or more	87	13

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and The 1985 Public School Survey, unpublished tabulation, October 1986.

Table 4-4.--Percentage of private schools with various types of staff, by school characteristics: 1985-86

School characteristics	Principals/ assistant principals	Teachers	Guidance counselors	Librarians	Other professional staff	Teacher aides	Nonprofessional staff
Total	94	100	30	44	40	43	82
Orientation							
Catholic	99	100	32	59	37	36	91
Other religious	90	100	26	30	36	45	72
Nonsectarian	96	100	32	42	55	51	89
Type/level*							
Elementary	94	100	16	39	39	41	79
Secondary	97	100	93	87	69	14	94
Combined	94	99	48	44	38	48	85
Other	93	100	16	31	72	68	86
Size							
Fewer than 50 students	81	99	18	18	20	33	51
50 - 149	95	100	22	26	41	45	80
150 - 299	98	100	27	53	39	45	93
300 - 599	98	100	41	68	46	46	95
600 or more	98	100	74	92	70	40	95

*Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-5.--Mean full-time equivalent staff in private schools, by school characteristics: 1985-86

School characteristics	Principals/ assistant principals	Teachers	Guidance counselors	Librarians	Other professional staff	Teacher aides	Nonprofessional staff
Total	1.3	13.9	1.1	1.0	3.1	3.5	4.8
Orientation							
Catholic	1.4	17.0	1.4	1.1	2.2	2.6	3.7
Other religious	1.0	9.7	0.7	0.8	2.2	2.5	3.3
Nonsectarian	1.9	16.6	1.2	1.2	5.6	6.9	9.8
Type/level*							
Elementary	1.1	10.9	0.6	0.9	1.4	3.2	2.9
Secondary	2.1	31.4	1.9	1.3	3.9	4.5	10.6
Combined	1.5	16.8	0.9	1.0	3.2	2.8	4.9
Other	1.7	9.9	1.2	1.1	6.0	5.4	8.8
Size							
Fewer than 50 students	0.7	2.9	0.4	0.6	4.0	2.0	2.0
50 - 149	1.2	8.6	0.7	0.8	3.3	3.9	4.1
150 - 299	1.2	13.0	0.8	0.9	2.0	2.3	3.3
300 - 599	1.7	22.5	1.2	1.1	2.9	4.9	6.2
600 or more	2.6	45.9	2.6	1.6	4.2	5.9	13.6
Years of operation							
10 or less	0.9	7.1	0.6	0.6	2.2	2.3	2.1
11 - 24	1.5	16.1	1.2	0.9	2.5	4.1	4.0
25 or more	1.5	16.2	1.3	1.1	3.7	3.9	6.4

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*Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-6.--Percentage of private schools with volunteers and type of support provided by student and nonstudent volunteers, by school characteristics: 1985-86

School characteristics	Percent of schools with volunteers	Percent of schools using volunteers for					
		Instructional support		Guidance support		Extracurricular support	
		Student	Nonstudent	Student	Nonstudent	Student	Nonstudent
Total	72	14	47	1	16	8	46
Orientation							
Catholic	84	14	54	3	19	9	52
Other religious	72	14	51	1	14	5	44
Nonsectarian	45	14	27	0	18	11	20
Type/level*							
Elementary	80	14	57	1	18	8	52
Secondary	54	27	15	4	20	13	36
Combined	73	14	48	0	13	6	45
Other	40	4	24	2	13	3	25

*Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-7.--Percentage of male and female teachers, by sector and selected private school characteristics: Public schools 1984-85 and private schools 1985-86

School characteristics	Male	Female
Sector		
Public schools	32	68
Private schools	24	76
Orientation		
Catholic	20	80
Other religious	30	70
Nonsectarian	28	72
Type/level*		
Elementary	10	90
Secondary	49	51
Combined	30	70
Other	25	75

*Elementary, secondary, and combined schools are regular schools, while other schools are primarily special education and alternative schools.

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and "The 1985 Public School Survey, Early Tabulations," 1986.

Table 4-8.--Percentage of teachers, by race, ethnicity and sector: Public schools 1984-85 and private schools 1985-86

Sector	White	Black	Hispanic	Other
Public schools	86	10	4	1
Private schools	92	4	3	1

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and "The 1985 Public School Survey, Early Tabulations," 1986.

Table 4-9.--Percentage of teachers by age: Public schools 1984-85 and private schools 1985-86

Age	Public	Private
Total	100	100
Younger than 30	14	24
30-34	17	18
35-39	23	20
40-44	16	14
45-49	12	9
50 years or older	19	15

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987 and The 1985 Public School Survey, unpublished tabulation, October 1986.

Table 4-10.--Percentage of teachers, by years of teaching experience and teaching status by sector and private school characteristics: Public schools 1984-85 and private schools 1985-86

School characteristic	Years of teaching experience (percent)			Teaching status (percent)	
	Less than 5	5 - 9	10 or more	Full-time	Part time
Sector					
Public	12	21	67	--	--
Private	25	27	48	83	17
Orientation					
Catholic	21	24	55	89	11
Other religious	28	31	42	77	23
Nonsectarian	29	27	44	78	22
Type/level[*]					
Elementary	25	28	47	86	14
Secondary	19	23	59	81	19
Combined	24	29	47	80	20
Other	41	27	32	82	18
Size					
Fewer than 50 students	55	23	22	76	24
50 - 149	35	31	35	78	22
150 - 299	26	29	45	83	17
300 - 599	21	27	52	85	15
600 or more	15	22	63	87	13
Years of operation					
10 or less	37	37	26	81	19
11 - 24	26	29	45	80	20
25 or more	22	24	54	85	15

-- Not available.

[*] Elementary, secondary, and combined schools are regular schools, while other schools are primarily special education and alternative schools.

NOTE: Percents may not add to 100 due to rounding.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and The 1985 Public School Survey, unpublished tabulation, October 1986.

Table 4-11.--Percentage of teachers, by highest degree and by sector and selected private school characteristics: Public schools 1984-85 and private schools 1985-86

	Highest Degree		
	Less than bachelor's	Bachelor's	Advanced degree
Sector			
Public	1	51	48
Private	5	64	31
Orientation			
Catholic	3	67	30
Other religions	9	64	28
Nonsectarian	5	60	36
Sex			
Male	2	54	45
Female	6	67	26
Years of experience			
Less than 5	8	78	13
5-9	5	70	25
10 or more	4	53	43
Type/level*			
Elementary	6	74	20
Secondary	1	48	51
Combined	8	58	34
Other	6	63	31
Size			
Fewer than 50 students	15	66	20
50-149	9	69	23
150-299	6	69	24
300-599	3	64	33
600 or more	2	53	45
Years of operation			
10 or less	9	74	16
11-24	7	62	31
25 or more	4	63	33

*Elementary, secondary, and combined schools are regular schools, while other schools are primarily special education and alternative schools.

NOTE: Percents may not add to 100 due to rounding.

SOURCES: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study. 1987, and "The 1985 Public School Survey, Early Tabulations," 1986.

Table 4-12.--Private school teachers' major field in undergraduate degree program, by school and teacher characteristics: *1985-86*

School and teacher characteristic	Number of teachers (in thousands)	Major field of undergraduate degree			
		Education	Other than education	Education and other	No degree
		(Percent of teachers)			
Total	404	51	32	12	5
Orientation					
Catholic	185	54	31	12	3
Other religious	127	50	28	12	9
Nonsectarian	92	45	40	10	5
Type/level[*]					
Elementary	190	60	22	12	6
Secondary	83	37	53	8	1
Combined	96	45	35	12	8
Other	35	48	33	13	6
Sex of teacher					
Male	97	37	52	10	2
Female	307	55	26	12	6

[*] Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

NOTE: Detail may not add to totals, and percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-13.--Percentage of private school teachers by number of earned undergraduate and graduate credit hours in subject taught: 1985-86

Subject taught	Teachers teaching the subject	Credit hours*		
	Number (in thousands)	0 - 3	4 - 12	13+
		(Percent of teachers teaching the subject)		
Art and music	40	17	26	58
Biological science	26	18	26	57
Business science	9	30	6	64
Computer science	12	51	30	19
English/language arts	77	5	26	69
Foreign language	20	8	13	79
Mathematics	64	19	37	44
Physical science	35	25	30	45
Social science	52	6	22	72

*In semester hours. Quarter hour categories have been converted to semester hour categories.

NOTE: Percents may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 4-14.--Percentage of secondary school teachers who are tenured and have a state certificate: 1984

Teacher characteristics	Public	Catholic	Other Private
Have tenure	77.4	30.3	20.7
Have a state teaching certificate	93.0	63.9	62.1

SOURCE: U. S. Department of Education, National Center for Education Statistics, High School and Beyond study data as augmented by the Consortium for Effective Schools, sponsored by the National Institute of Education, unpublished tabulation, 1985.

Table 4-15.--Average base academic year salaries of full-time teachers, by sector and orientation: 1985-86

Sector	Average base salary
Public*	$24,335
Private	14,400
Catholic	14,036
Other religious	13,764
Nonsectarian	16,779

*1984-85 public school teacher salary adjusted to 1985-86 dollars using an inflation factor of 7.2 percent.

NOTE: Includes only full-time teachers who had salaries.

SOURCE: U. S. Department of Education, National Center for Education Statistics. "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-86," 1989, and 1985-86 Private School Study, unpublished tabulation, 1989.

Table 4-16.--Distribution of full-time public and private school teachers, by base academic year salary category: Public schools 1984-85 and private schools 1985-86

Salary category	Public school teachers, 1984-85 Percent	Private school teachers, 1985-86[*] Percent
Total	100.0	100.0
$ 0	0.0	0.5
1 - 9,999	0.2	17.8
10,000 - 14,999	6.1	39.4
15,000 - 24,999	60.8	37.3
25,000 - 34,999	30.0	4.6
35,000 or more	3.1	0.3

[*] Includes some private school teachers who reported no salary.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-86," 1989.

Table 4-17.--Average base academic year salaries of full-time public and private school teachers, by years of teaching experience: Public schools 1984-85 and private schools 1985-86

	Public school teachers		Private school teachers	
Years of experience	1984-85 salary	Salary in 1985-86 dollars*	1985-86 salary	Salary difference 1985-86
All teachers	$22,701	$24,335	$14,400	$ 9,935
5 or less	16,395	17,575	12,191	5,384
6 to 10	19,307	20,697	14,500	6,197
11 to 15	22,970	24,624	16,415	8,209
16 to 20	25,839	27,699	18,069	9,630
21 to 25	26,943	28,883	16,546	12,337
26 to 30	27,812	29,814	16,326	13,488
More than 30	26,912	28,850	12,223	16,627

*1984-85 public school teacher salary adjusted to 1985-86 dollars using an inflation factor of 7.2 percent.

NOTE: Includes only full-time teachers who had salaries.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-86," 1989.

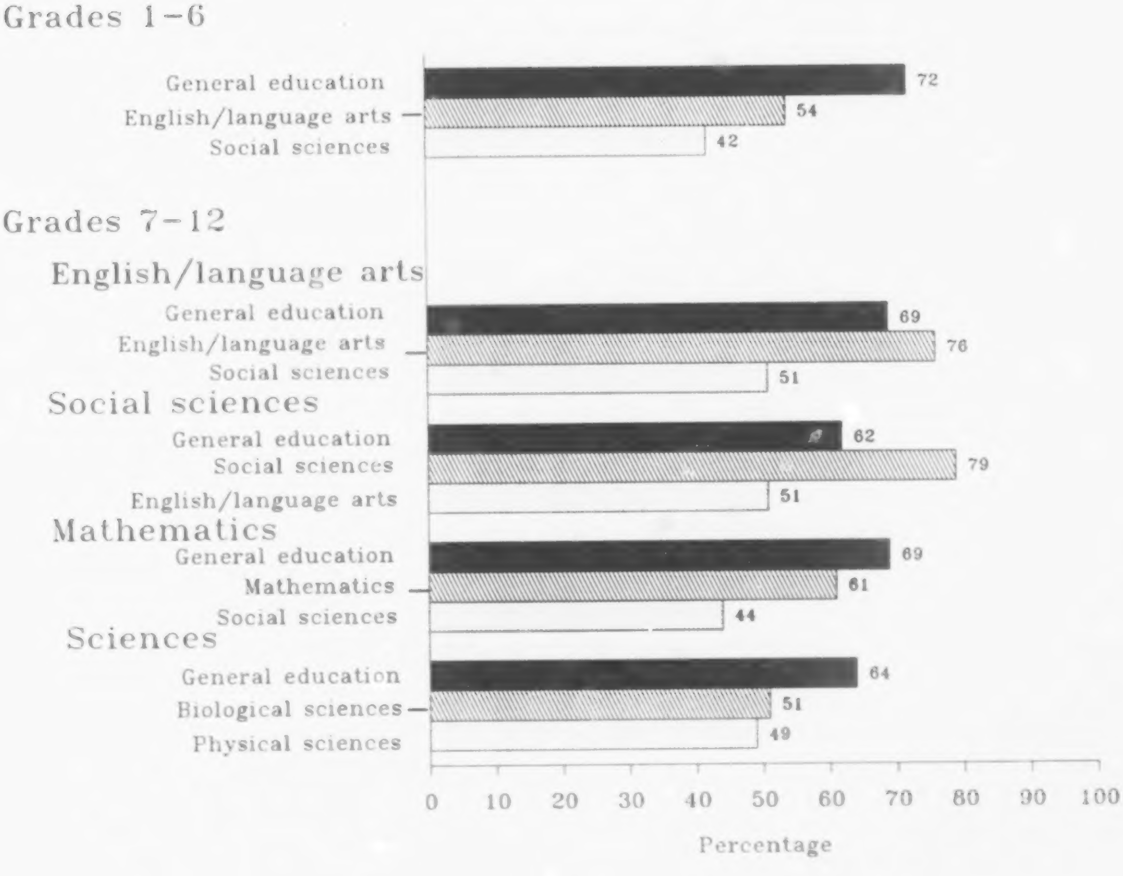
Table 4-18.--Number of hours teachers spent each week on school-related activities within and outside required school hours: Public schools 1984-85 and private schools 1985-86

School-related activities	Public school teachers, 1984-85	Private school teachers, 1985-86
	Average hours during most recent week	
Total	50	50
During required school hours	39	37
Classroom teaching	26	25
Outside of required school hours	12	13

NOTE: Detail may not add to totals because of rounding. Data cover full-time school staff whose primary assignment was teaching.

SOURCE: U.S. Department of Education, National Center for Education Statistics. "The 1985 Public School Survey, Early Tabulations," 1986, and Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Figure 4-1.--Percentage of private school teachers with 13 or more credit hours in specific areas, by level and subject assignment: 1985-86



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Survey.

CHAPTER 5

SCHOOL RESOURCES AND STUDENT OUTCOMES

SCHOOL RESOURCES

Pupil/Teacher Ratios

The full-time-equivalent teacher estimates are used in conjunction with student enrollment estimates to compute pupil/teacher ratios. In the 1985-86 school year the pupil/teacher ratio in private schools was 17 to 1, compared with 17.9 pupils per teacher in public schools (table 5-2). Over the 1980-85 period, the private school pupil/teacher ratio went from 17.7 to 16.2, and the public school ratio went from 18.8 to 17.9, suggesting a trend toward smaller class sizes in both private and public schools (table 5-1).

The 1985-86 pupil/teacher ratio varied by private school orientation (table 5-2). Catholic school enrollments represented 60 percent of all private school students, while Catholic school teachers accounted for 46 percent of all private school teachers, resulting in a ratio of 21 pupils per teacher. By comparison, 14 percent of all private school students attended nonsectarian schools and 23 percent of private school teachers worked in these schools, yielding a pupil/teacher ratio of 10 to 1. The pupil/teacher ratio of 15 to 1 in other religious schools falls in between the other two groups.

Differences were also observed in pupil/teacher ratios at various instructional levels (table 5-2). Private elementary schools reported a mean pupil/teacher ratio of 20, while private secondary schools averaged 17 pupils per teacher, and combined schools averaged 13 pupils per teacher. The mean pupil/teacher ratio was also related to school size, with smaller schools reporting lower ratios than their larger counterparts. The mean ratio varied from 10 to 1 in schools with fewer than 50 students to 20 to 1 in schools with 600 or more students.

Student Services

The 1985-86 Private School Survey included data on selected student programs and services: bilingual education, English as a second language, remedial reading, remedial mathematics, programs for the handicapped, programs for the gifted and talented, vocational and technical programs, foreign languages, and diagnostic services. Sixty-nine percent of all private schools offered remedial reading, and about half of all private schools reported providing one or more of the following programs: remedial mathematics instruction (53 percent), foreign language instruction, and diagnostic services designed to identify learning problems and to provide special therapeutic or educational programs (51 percent) (table 5-3). Catholic and nonsectarian schools were more likely to provide diagnostic services and remedial programs in reading and mathematics than schools with religious orientations other than Catholic.

Public funds were available for bilingual education, remedial and compensatory education, handicapped services, vocational education, and guidance or psychological services. In addition, data were also collected on the use of public funds for transportation, instructional and library materials, speech therapy, child nutritional services, and health services. Sixty-one percent of all private schools reported one or more students receiving at least one service paid for with public funds (table 5-4). Ninety percent of Catholic schools reported students receiving publicly funded services, compared with 49 percent of nonsectarian schools and 41 percent of other religious schools.

Curriculum

Secondary school program emphasis data from 1980 show that about 70 percent of all private high school students were enrolled in academic programs, about 10 percent in vocational programs, and approximately 18 percent in general programs (table 5-5). By comparison, students in public high schools were more evenly divided among these three program types, with 36 percent enrolled in academic programs, 35 percent enrolled in general programs, and 29 percent enrolled in vocational programs. Data on vocational and personal development course offerings further support these patterns, insofar as public schools were more likely to offer courses in home economics, wood or machine shop, and auto mechanics than either Catholic or other private schools (figure 5-1).

Specific course offerings and graduation requirements both provided further information on the types of programs offered in different schools. Data from the 1980 High School and Beyond study show that 95 percent or more of all high schools, public and private, offered courses in geometry and algebra; the percentage of public and private high schools with courses in chemistry, physics, and trigonometry was also high (that is, 69 percent or more) (figure 5-2). The largest differences were reported in third year Spanish and French, with relatively more Catholic schools offering these courses than either public or other private schools.

In 1985-86, the average years of coursework required for graduation from private high schools ranged from 3.9 for English and 3.1 for social studies to 2.8 for mathematics and 2.5 for science (table 5-6). The average graduation requirements for public high schools in 1984-85 ranged from 3.8 for English and 2.8 for social studies to 1.9 for mathematics and 1.8 for science.

Figure 5-3 compares public and private high schools on conformity with the standards recommended by the National Commission on Excellence in Education. While all school types either meet or are close to meeting the standards of 4 years for English and 3 years for social studies, some improvement remains to be made on the part of many schools in reaching the goals of 3 years each for mathematics and science, and the goal of 2 years for foreign languages.

STANDARDS AND GOALS

Entrance Requirements

In 1985-86, just under 40 percent (37.7 percent) of all private schools and about one-half (53 percent) of all private schools with grades 10, 11, or 12 required an entrance examination as a criterion for admission (U.S. Department of Education 1987 and unpublished tabulations). The percentage of schools with admission examinations did not vary substantially across orientation groups when all grades were considered; yet at the high school level, 71 percent of the Catholic schools and 66 percent of the nonsectarian schools required examinations, compared to 43 percent of the other religious schools (Figure 5-4).

A national 1984 study of Catholic high schools establishes a broad range of admission criteria. Beyond the successful completion of the previous school year, the most common criteria used in Catholic high school admission decisions included standardized tests and a recommendation from the elementary school principal (Table 5-7).

Goals

Secondary school teachers in public and private schools were asked in two surveys to rank in order of importance eight goals for students (U.S. Department of Education 1988):

- Basic literacy skills in mathematics, reading, writing, and speaking;
- Academic excellence or mastery of course subject matter;
- Citizenship;
- Occupational skills;
- Good work habits and self discipline;
- Personal growth and fulfillment;
- Human relations skills; and
- Moral or religious values.

An analysis of the goals identified as high priority (that is, as a first or second priority) showed that public school teachers were most likely to select literacy skills (61 percent), followed by good work habits and self-discipline (44 percent) (table 5-8). Private school teachers in religious schools identified moral and religious values and literacy skills as the most important goals. In nonsectarian private schools, 51 percent of the teachers assigned a high priority to literacy skills, and approximately 40 percent identified either personal growth or good work habits and self-discipline as high priorities for their students.

ATTITUDES

How students feel about their schools, their teachers, and their educational experience most certainly affects the learning process. Similarly, teachers' opinions of their colleagues, their principals and school administration, and their work environment must also have some effect on the interpersonal interactions that are a part of the teaching-learning continuum. School discipline policies and perceptions of them also reflect students', teachers', and administrators' attitudes towards the school setting.

In a 1982 survey of high school students, about 75 percent of the students reported that their parents had never visited a class, and 40 to 50 percent of the private school students and about 60 percent of the public school students reported that their parents had never had a teacher conference (table 5-9). Students were given a list of 10 teacher characteristics and asked to identify the characteristics that are important in ideal teachers and to rate their teachers on each characteristic:

- Make clear presentations;
- Work students hard;
- Don't talk over students' heads;
- Are patient and understanding;
- Return students' work promptly;
- Enjoy their work;
- Treat everyone with respect;
- Are witty and humorous;
- Teach just for money; and
- Have interest in students outside school.

Eighty percent or more of the students in public, Catholic, and other private schools identified "make clear presentations," "treat everyone with respect," "are patient and understanding," and "enjoy their work" as important teacher characteristics. In addition, at least two-thirds of each group of students indicated that it is important that teachers "don't talk over students' heads."

In rating their current teachers, about 12 to 21 percent of students in public, Catholic, and other private schools indicated that their teachers "enjoy their work," and 23 to 39 percent reported that their teachers "treat everyone with respect" (table 5-9). Even though the majority of students gave high priority to "make clear presentations," "are patient and understanding," and "don't talk over students' heads," the percentages of students reporting that their teachers met these goals were on the order of 14 to 37 percent. Despite these discrepancies in students' ideal expectations and their reported experiences, nearly three-quarters or more of the students in each group reported that they were "satisfied with education up to present time."

The same two surveys that included questions on secondary teachers' goals for students also included a common set of 16 statements concerning teachers' opinions towards their colleagues, principals and school administration, and schools (U.S. Department of Education 1984, 1987).

At least two-thirds of all teachers, regardless of sector and orientation, indicated that "colleagues share beliefs and values on school mission," "staff maintains high standards of performance," and a "cooperative effort among staff" (Table 5-10). However, significantly fewer public than private school teachers gave good ratings on school spirit and sense of familial bond within the school.

Although the majority of public and private secondary school teachers expressed positive attitudes towards principals and school administration, relatively more teachers in public secondary schools expressed dissatisfaction with their principals and school administration (30 to 40 percent in public schools versus 15 to 20 percent in private schools) (table 5-11).

Teachers in private secondary schools reported generally positive attitudes towards their students (70 to 85 percent affirmative). In contrast, 50 to 60 percent of the public school teachers reported that students' lateness and absence were problems and that students' attitudes reduce chances for success (table 5-12).

High school seniors in 1982 were asked about students who often exhibit inappropriate classroom behaviors. The percentages reporting fellow students with no books (6 to 11 percent), no pencil and paper (17 to 20 percent), and/or homework not done (25 to 30 percent) were relatively constant across the three sectors--public, Catholic, and other private schools. In contrast, public school students were more likely to report that their peers talked back to teachers, disobeyed instructions, or both (table 5-13).

The responses that high school administrators gave in an assessment of disciplinary problems follows the patterns reported by teachers on the topics of student absenteeism and cutting classes, with public school administrators more likely than private school administrators to report these behaviors as problems (table 5-14). Similarly, administrators in public schools were also more likely than those in private schools to report drug and alcohol abuse as problems.

In a factor-analytic model of the range of attitude and behavior data available from the public and Catholic school teachers in the "High School and Beyond" study, five factors were identified: principal leadership, staff cooperation, student behavior, teacher control over school and classroom policy, and teacher morale. Catholic high school teachers were more likely to respond positively on data items in each of the five factors (figure 5-5).

OUTCOMES

Students' Self-Evaluations

High school sophomores and seniors were asked to indicate their level of agreement with each of six statements relating to fate control:

- "Good luck important" (disagree strongly);
- "Someone stops me" (disagree strongly);

- "Plans don't work out" (disagree strongly);
- "Should accept conditions" (disagree strongly);
- "What happens is my doing" (agree strongly); and
- "My plans work out" (agree strongly).

On average, regardless of school sector and orientation, 15 to 20 percent of the sophomores expressed a strong sense of fate control, compared with about 20 to 25 percent of the seniors (table 5-15).

A second set of six statements was administered in the area of self-esteem:

- "Take positive attitude toward myself" (agree strongly);
- "I'm a person of worth" (agree strongly);
- "Able to do things as well as others" (agree strongly);
- "On the whole, satisfied with myself" (agree strongly);
- "I'm not good at all" (disagree strongly); and
- "Not much to be proud of" (disagree strongly).

In this case, about one-quarter of all sophomores and one-third of all seniors expressed high self-esteem (table 5-15).

Students' involvement in extracurricular activities can serve as an indirect measure of students' self-esteem. Data in table 5-16 show that one-quarter to one-third of all students participated in three or more activities, while only about 8 to 15 percent participated in no activities.

Cognitive Achievement

Achievement tests were administered to high school sophomores and seniors in the 1980 "High School and Beyond" study. Coleman, Hoffer, and Kilgore (1982) reported that for every subject area tested, the average student in Catholic and other private schools scored above the average student in public schools (Tables 5-17, 5-18).

These school sector and orientation achievement differences could be due, in part, to differences in family and social background characteristics between public and private school students. To examine the effect of school sector and orientation on achievement, Coleman and Hoffer (1987) used the 1980 and 1982 "High Schooland Beyond" longitudinal data to compare school sector and orientation on achievement growth between the sophomore and senior years. In this analysis, the authors also statistically controlled for the effects of sector and orientation differences in family and social background on achievement growth. These controls included race, socioeconomic status, region, handicap status, the students' college plans in ninth grade, and parents' educational aspirations for their child.

Having controlled for these background differences, Coleman and Hoffer reported that significant sector and orientation differences in achievement remained. Students in Catholic schools, compared to those in public schools, gained more in four of the six tested areas: reading, vocabulary, mathematics, and writing. On two other tests, civics and science, achievement growth in Catholic schools and public schools did not differ (table 5-19). When comparing other private schools to public schools, significant differences occurred on two of the six tests (reading and vocabulary). In both cases, achievement growth is greater in the other private schools.

The National Assessment of Educational Progress (NAEP), now administered by the Educational Testing Service under contract from NCES, periodically assesses achievement among 4th-, 8th-, and 11th-grade students. Owing to sample size limitations, NAEP has not historically published public-private differences. However, analyses have been made of these data sets by other researchers. One example is an examination of public-Catholic school differences in reading proficiency, based on 1983-84 NAEP data. In each of the three grades (4th, 8th, 11th), a statistically significant difference in reading proficiency was reported among Catholic school students (Lee 1985).

College entrance exams provide some measure of the performance of high school students planning on going to college. Students attending private high schools have been reported as generally scoring higher than public high school students on each component of the American College Testing Program Assessment (ACT) and the verbal component of the Scholastic Aptitude Test (SAT), while the scores on the SAT mathematics test are similar among public and private high school students (table 5-20) (U.S. Department of Education 1987a).

High School Completion

Coleman, Hoffer, and Kilgore (1982) used data from the sophomore sample in the "High School and Beyond" study to estimate high school dropout rates of 24 percent in public schools, compared with high school dropout rates of 12 percent in Catholic schools and 13 percent in Other private schools. When the graduation rates for all students starting the senior year are considered, the data show a graduation rate of 94 percent in public high schools, compared with a graduation rate of 99 percent in private high schools (U.S. Department of Education 1987, 1988a).

College and Educational Attainment

In the 1985-86 Private School Survey, the respondent for the school questionnaire (usually an administrator) was asked to estimate the percentage of graduates who applied to a 2- or 4-year college. The responses resulted in an estimated college application rate for private school new graduates of 80 percent (U.S. Department of Education 1987). By comparison, when high school seniors in the 1982 "High School and Beyond" study were asked if they applied to college, the reported college application rate among private school seniors was 90 percent and the reported rate for public school seniors was 80 percent (table 5-21). About 10 to 15 percent of the students who applied to college were still waiting in the spring of 1982 to hear whether they had been accepted, and 13 percent of the public school applicants, 6 percent of the Catholic school applicants, and 4 percent of the applicants from other private schools reported that they had not been accepted. The remaining 73 to 86 percent had already been accepted by one or more colleges.

Postsecondary enrollment rates in October 1980 and February 1984 are available for 1980 high school graduates (table 5-22). About one-half of all public school graduates and two-thirds of all private school graduates were enrolled in some form of postsecondary institution in October 1980. By February 1984, some 64 percent of the 1980 public school graduates and 84 percent of the 1980 private school graduates reported having "ever" attended a postsecondary institution. Some 27 percent of the 1980 public high school graduates and 49 percent of the 1980 private high school graduates were enrolled in 4-year colleges in the fall of 1980 (table 5-22). Approximately 55 percent of these graduates from Public and other private schools and 60 percent of these graduates from Catholic schools were still enrolled in the spring of 1984 (table 5-23). The year-to-year attrition rates declined in each school sector as the time in school increased.

A substantial portion of the students who attended 4-year colleges received some form of financial aid. Over the 4-year period from fall of 1980 through spring of 1984, approximately 50 to 55 percent of the public high school graduates attending public colleges and 33 to 40 percent attending private colleges received financial aid (table 5-24). Among Catholic high school graduates, 18 to 30 percent of the students attending public colleges and 55 to 66 percent of the students attending private colleges received financial aid. And for graduates from other private schools, the percentages were 6 to 28 percent for public colleges, and 24 to 28 percent for private colleges.

By the spring of 1986, approximately two-thirds of the 1980 public school seniors and one-half of the 1980 private school seniors reported that the high school diploma was their highest degree earned. By comparison, about 13 percent of the 1980 public school seniors, 29 percent of the 1980 Catholic school seniors, and 37 percent of the 1980 seniors in other private schools reported having received a bachelor's degree by the spring of 1986 (table 5-25).

The percentage of high school seniors in 1980 who received a BA, BS, or MA degree by the spring of 1986 ranged from 9 percent of public school students to 25 percent of Catholic school students and 26 percent of other private school students (table 5-26). Among black 1980 high school seniors, the percentages receiving one of these degrees by spring, 1986 were 9 percent of public school students, 25 percent of Catholic school students, and 31 percent of other private school students.

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Table 5-1.--Public and private elementary and secondary school pupil/teacher ratios, by level: 1980-1985

Year	Public schools			Private schools*		
	K - 12	Elementary	Secondary	K - 12	Elementary	Secondary
			Pupil/teacher ratios			
1980	18.8	20.3	16.9	17.7	18.8	15.0
1981	18.9	20.5	16.9	17.6	18.6	15.2
1982	18.7	20.4	16.6	17.2	18.2	14.9
1983	18.5	20.4	16.2	17.0	18.0	14.4
1984	18.1	20.0	15.7	16.8	17.7	14.4
1985	17.9	19.6	15.7	16.2	17.1	14.0

*Data for 1981, 1982, and 1984 are estimated.

NOTE: Based on number of students divided by number of full-time equivalent (F.T.E.) teachers. Kindergarten includes a relatively small number of nursery school teachers and students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Statistics of Public Elementary and Secondary Day Schools"; Common Core of Data survey, and "Projections of Education" as published in Digest of Education Statistics 1989.

Table 5-2.--Mean pupil/teacher ratio by private school characteristics: 1985-86

School characteristic	Mean pupil/teacher ratio[1]
Total	[2]17
Orientation	
Catholic	21
Other religious	15
Nonsectarian	10
Type/level[3]	
Elementary	20
Secondary	17
Combined	13
Other	9
Size	
Fewer than 50 students	10
50 - 149	12
150 - 299	17
300 - 599	18
600 or more	20

[1] Based on number of students divided by number of full-time equivalent (F.T.E.) teachers.

[2] Computed using a different source than that used in table 5-1.

[3] Elementary, secondary, and combined are regular schools, while other schools are primarily special education and alternative schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 5-3.--Percentage of private schools offering various programs and services, by school orientation: 1985-86

Program/ service	Total	Orientation		
		Catholic	Other religious	Nonsectarian
Bilingual education	9	4	11	12
English as a second language	12	9	14	14
Remedial reading	69	78	59	73
Remedial mathematics	53	61	42	62
Programs for the handicapped	18	15	16	30
Programs for the gifted and talented	33	37	28	37
Vocational/technical programs	14	8	15	26
Foreign languages	46	33	48	70
Diagnostic services	51	61	41	52

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 5-4.--Percentage of private schools receiving publicly funded student services, by orientation: 1985-86

		Publicly funded services		No publicly funded services	
Orientation	Total	Number	Percent	Number	Percent
Total	25,600	15,700	61	9,900	39
Catholic	9,900	8,900	90	1,000	10
Other religious	10,800	4,400	41	6,400	59
Nonsectarian	4,900	2,400	49	2,500	51

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Table 5-5.--Percentage of high school students enrolled in academic, general, and vocational programs, by sector: 1980

Program	Public	Catholic	Other Private
Academic	35.7	72.1	71.1
General	34.9	17.8	18.6
Vocational	29.4	10.1	10.3
Sample size	20,758	2,339	439

NOTE: Percentages are based on student self-reported program participation, taken from the 1982 High School and Beyond followup of the 1980 cohort.

SOURCE: Coleman, J.S., & Hoffer, T. Public and Private High Schools: The Impact of Communities, 1987.

Table 5-6.--Average number of years of coursework required for graduation from public and private high schools, by selected subject matter: Public schools 1984-85 and private schools 1985-86

			Private schools		
Coursework	Total	Public	Catholic	Other religious	Secular
Mathematics	2.8	1.9	2.6	2.8	3.0
Science	2.5	1.8	2.3	2.6	2.5
English	3.9	3.8	4.0	3.9	4.0
Social studies	3.1	2.8	3.0	3.2	2.9

NOTE: Data on private schools are based on individual schools; data on public schools are based on school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The Condition of Education, 1987.

Table 5-7.--Percentage of Catholic high schools requiring various criteria for admission: 1984

Criteria	Always required	Usually required	Rarely or never required
		Percent	
Ability to pay full tuition without aid	6.2	22.3	56.8*
Completion of one or more standardized achievement or aptitude tests	52.0	27.3	14.0
Completion of written admission test developed by the school	14.1	8.0	65.2
Personal interview with parent or guardian	32.3	14.5	14.5
Personal interview with student	35.3	14.9	13.5
Recommendation of elementary school principal	48.0	25.1	8.8
Recommendation of student's pastor	11.6	8.8	43.2
Strong academic record	28.1	32.6	20.3
Sucessful completion of previous year of school	79.7	15.4	1.9

*Difference between summed percentages and 100 percent is represented by "sometimes" responses.

SOURCE: Yeager, R.J., Benson, P.L., Guerra, M.J., & Manno, B.V. The Catholic High School: A National Portrait, 1985.

Table 5-8.--Percentage of secondary school teachers ranking goals for students as very important ("1" and "2" out of 8), by school characteristics: Public schools 1983-84 and private schools 1985-86

Goals for students	Public schools	Private Schools			
		Total	Catholic	Other religious	Non-sectarian
Literacy skills	61	46	42	46	51
Academic excellence	33	30	30	26	34
Citizenship	7	4	4	3	4
Occupational skills	7	2	2	2	2
Good work habits/ self discipline	44	30	29	22	40
Personal growth	23	37	37	31	41
Human relations skills	15	14	14	10	19
Moral or religious values	10	41	41	61	6

NOTE: Since the first and second most important goals are combined, the percentages for each of the school types add to 200 (with rounding error).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study. U.S. Department of Education, Office of Research, High School and Beyond Administrator and Teacher Survey 1984. As reported in National Center for Education Statistics, "Secondary School Teachers' Opinions: Public and Private Schools," 1988.

Table 5-9.--Student perceptions of their teachers: 1982

	Public	Catholic	Other private
		Percent	
Parents have never had teacher conference	61	43	49
Parents have never visited class	79	75	78
Counselors/teachers don't care about students' post-secondary future	5/7	4/6	4/4
Satisfied with education up to present time	73	79	82
These characteristics are important in ideal teachers:			
- make clear presentations	83	93	91
- work students hard	38	39	34
- don't talk over students' heads	67	76	70
- are patient and understanding	80	84	84
- return students' work promptly	36	36	31
- enjoy their work	84	89	89
- treat everyone with respect	81	87	86
- are witty and humorous	40	41	41
- teach just for money	9	9	9
- have interest in students outside school	20	20	24
Students report that their teachers:			
- make clear presentations	23	15	14
- work students hard	40	29	23
- don't talk over students' heads	34	22	19
- are patient and understanding	37	26	21
- return students' work promptly	38	35	26
and that few or no teachers:			
- enjoy their work	21	12	13
- treat everyone with respect	39	27	23
- are witty and humorous	51	44	36
- do their job just for money	68	80	80
- have interest in students outside school	72	63	51

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Study: "High School Students' Perceptions of Their Teachers," 1984.

Table 5-10.--Percentage of secondary school teachers agreeing with various statements relating to their fellow teachers: Public schools 1983-84 and private schools 1985-86

School-related statement	Public schools	Private Schools			
		Total	Catholic	Other religious	Non-sectarian
Colleagues share beliefs and values regarding school mission	72	82	80	85	81
Cooperative effort among staff	67	88	85	87	92
Staff maintains high standards of performance	79	93	91	93	95
School seems like big family, cordial and close	41	79	78	81	79
Staff does not have much school spirit*	47	23	24	21	25

*In the case of a negative statement, the percent responding positively is 100 minus percent in agreement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study, U.S. Department of Education, Office of Research, High School and Beyond Administrator and Teacher Survey, 1984. As reported in National Center for Education Statistics, "Secondary School Teachers' Opinions: Public and Private Schools," 1988.

Table 5-11.--Percentage of secondary school teachers agreeing with various statements relating to their principals and school administration: Public schools 1983-84 and private schools 1985-86

School-related statement	Public schools	Private Schools			
		Total	Catholic	Other religious	Non-sectarian
Principal communicates desires to staff	67	82	81	82	82
Administration knows problems faced by staff	61	78	79	80	75
Administration is supportive and encouraging of staff	67	82	81	84	81
Teachers and administrators agree on discipline policy	63	81	80	84	80
Principal lets staff know expectations	69	83	83	84	82
Principal interested in innovation and new ideas	65	83	80	84	85
Necessary materials are available to staff	66	84	86	84	82
Principal does poor job getting resources*	26	16	17	17	15

*In the case of a negative statement, the percent responding positively is 100 minus percent in agreement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study, and U.S. Department of Education, Office of Research, High School and Beyond Study, Administrator and Teacher Survey 1984. As reported in National Center for Education Statistics, "Secondary School Teachers' Opinions: Public and Private Schools," 1988.

Table 5-12.--Percentage of secondary school teachers agreeing with various statements relating to their students' behavior: Public schools 1983-84 and private schools 1985-86

School-related statement	Public schools	Private Schools			
		Total	Catholic	Other religious	Non-sectarian
Student misbehavior/ substance abuse interferes	38	16	12	15	23
Student tardiness/classes cut interferes	52	15	10	17	18
Student attitudes reduce chances for success	61	31	26	28	42

NOTE: In the case of negative statement, the percent responding positively is 100 minus percent in agreement.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study, U.S. Department of Education, Office of Research, High School and Beyond Study, Administrator and Teacher Survey, 1984. As reported in National Center for Education Statistics, "Secondary School Teachers' Opinions: Public and Private Schools," 1988.

Table 5-13.--Percentage of students who often exhibit inappropriate classroom behavior: 1982
(Students' reports)

Nature of problem	Public	Catholic	Other private
No pencil and paper	19	20	17
No books	11	6	7
Homework not done	30	25	30
Students talking back to teachers	51	29	27
Students disobeying instructions	39	20	17

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Study, "Discipline Measures for 1982 High School Graduates", 1984.

Table 5-14.--Administrators' assessments of disciplinary problems in public and private school: 1980

Serious or moderate problem	Public	Catholic	Other private
		Percent	
Student absenteeism	56.6	15.2	13.8
Cutting classes	37.0	4.6	0
Verbal abuse of teachers	9.6	4.7	5.3
Drug and alcohol use	48.5	26.2	18.0
Vandalism of school property	24.5	13.8	11.7

SOURCE: Coleman, J.S.; Hoffer, T.; and Kilgore, S., *High School Achievement: Public, Catholic, and Private Schools Compared*, 1982.

Table 5-15.--Percentage of high school sophomores who report selected positive attitudes and behaviors: 1980

Sector and level	Sense of fate control	High self-esteem responses	Never absent except when ill	Never cut classes	Never late to school
Public school students					
as sophomores	16.5	23.7	33.7	68.6	42.0
as seniors	21.3	29.2	24.8	53.6	35.9
Catholic high school students					
as sophomores	18.6	24.9	48.8	88.7	47.7
as seniors	23.0	30.2	34.0	74.6	41.2
Other private school students					
as sophomores	17.7	25.4	37.0	71.0	35.6
as seniors	26.4	32.4	30.8	59.3	28.2

SOURCE: Coleman, J.S.; Hoffer, T.; and Kilgore, S., High School Achievement: Public, Catholic, and Private Schools Compared, 1982.

Table 5-16.--Percentage of students participating in extracurricular activities: 1980

	Public	Catholic	Other private
Varsity athletics	36.1	37.3	57.4
Other athletics	40.4	47.7	46.3
Cheerleading, pep club	14.8	15.8	11.5
Debating or drama	13.1	14.9	28.4
Band or orchestra	15.5	8.6	9.6
Chorus or dance	19.6	18.3	29.1
Hobby clubs	19.4	20.3	17.2
Honorary clubs	16.3	21.0	13.4
School newspaper, yearbook	17.5	28.5	42.0
School subject-matter clubs	21.1	20.6	15.5
Student council	16.9	19.0	22.7
Vocational education clubs	26.4	4.1	9.6
Percentage of students participating in three or more activities	26.7	24.3	33.7
Percentage of students participating in no activities	10.5	14.3	8.0

SOURCE: Coleman, J.S., and Hoffer, T. Public and Private High Schools: The Impact of Communities, 1987.

Table 5-17.--Means for sophomore test scores in public and private schools: Spring 1980

Test	U.S. total	Major sectors			High-performance schools	
		Public	Catholic	Other private	Public	Private
Reading (19)*	9.1	8.9	10.5	10.5	11.7	14.5
Vocabulary (21)	10.9	10.7	12.9	13.1	14.1	17.6
Mathematics (38)	18.6	18.3	21.5	22.3	24.9	30.2
Science (20)	10.9	10.8	11.9	12.4	13.2	15.1
Civics (10)	5.8	5.8	6.5	6.4	7.1	7.8
Writing (17)	10.3	10.1	11.9	11.5	12.8	14.7

*Numbers in parentheses refer to total number of test items.

SOURCE: Coleman, J.S.; Hoffer, T.; and Kilgore, S., High School Achievement: Public, Catholic, and Private Schools Compared, 1982.

Table 5-18.--Means for senior test scores in public and private schools: Spring 1980

Test	U.S. total	Major sectors			High-performance schools	
		Public	Catholic	Other private	Public	Private
Means						
Reading (20)*	10.9	10.8	11.9	13.0	13.5	14.0
Vocabulary (27)	13.1	12.9	15.1	15.9	18.0	21.6
Mathematics (32)	19.1	18.9	21.1	22.4	23.9	28.1
Picture Number (15)	11.3	11.3	12.1	11.9	11.6	13.0
Mosaic (89)	45.3	45.2	47.3	51.0	54.2	55.3
Visual (16)	7.7	7.7	7.5	8.6	8.8	9.8

*Numbers in parentheses refer to total number of test items.

SOURCE: Coleman, J.S.; Hoffer, T.; and Kilgore, S., High School Achievement: Public, Catholic, and Private Schools Compared, 1982.

Table 5-19.--Estimates of effect of private sector on growth in achievement of average public school students on six tests, controlling on family background: 1980 sophomores as seniors

Test	Average number correct in public school at sophomore level	Average growth in public school	Private sector increment[*]			
			In items correct		As grade equivalent	
			Catholic	Other private	Catholic	Other private
Reading	9.3	1.00	0.49 (0.15)	0.74 (.35)	1.0	1.50
Vocabulary	11.0	1.75	0.74 (0.14)	0.99 (.32)	0.9	1.10
Mathematics	19.1	1.46	0.75 (0.24)	-0.22 (.57)	1.0	-0.30
Science	11.2	0.79	0.05 (0.14)	-0.12 (.32)	0.1	-0.30
Civics	5.9	0.84	0.15 (0.09)	0.27 (.22)	0.2	0.32
Writing	10.5	1.31	0.64 (0.13)	0.40 (.31)	1.0	0.61

[*] Refers to private school increment above (or below) average growth in public school.

NOTE: Standard errors in parentheses.

SOURCE: Coleman, J.S. and Hoffer, T., *Public and Private High Schools: The Impact of Communities*, 1987.

Table 5-20.--American College Testing (ACT) and Scholastic Aptitude Test (SAT) scores, by control of high school: School years ending 1981 through 1985

Year and sector	English*	Mathematics	Social studies	Natural science	Composite
		Mean ACT scores			
1982					
Public	17.6	17.1	17.2	20.8	18.4
Private	18.7	17.6	18.0	21.2	19.0
Catholic	18.6	17.9	18.2	21.2	19.1
1983					
Public	17.7	16.9	17.0	20.9	18.2
Private	18.7	17.4	17.8	21.2	18.9
Catholic	18.7	17.7	18.1	21.3	19.1
1985					
Public	18.0	17.0	17.2	21.0	18.4
Private	18.8	17.4	17.8	21.3	18.9
Catholic	18.9	17.8	18.1	21.4	19.2
		Median SAT scores			
1981					
Public	420	467	--	--	--
Private	431	466	--	--	--
1982					
Public	423	469	--	--	--
Private	437	466	--	--	--
1983					
Public	421	467	--	--	--
Private	435	467	--	--	--
1984					
Public	423	469	--	--	--
Private	437	469	--	--	--
1985					
Public	427	475	--	--	--
Private	441	474	--	--	--

-- Not applicable

*"English" is the ACT designation; "verbal," the SAT designation.

SOURCE: American College Testing Program, Reference Norms for Spring (various years) ACT Tested High School Graduates, various years, College Entrance Examination Board, Profiles of College-Bound Seniors, various years; U.S. Department of Education, National Center for Education Statistics, The Condition of Education, 1987

Table 5-21.--Public and private school seniors' college application experience: Spring 1982

	Public	Catholic	Other private
Percent			
Applied to 1 college	37	32	30
Applied to 2 or 3 colleges	30	39	33
Applied to 4 or more colleges	11	19	29
Applied to one college or more	79	90	92
Did not apply	21	10	8
Accepted*	73	82	86
Not accepted*	13	6	4
Had not heard*	14	12	10

*Percent of students who applied to college.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "College plans, expected college costs, and expected use of financial aid of 1980 high school sophomores as seniors in 1982," 1984.

Table 5-22.--Postsecondary enrollment rates in 1980 and 1984 for high school graduates, by control of high school and type of institution

Type of institution	High school graduates		
	All graduates	Public school	Private school
	Percent enrolled in October 1980		
Total	50.6	48.5	68.9
4-year	30.9	26.9	48.9
2-year	16.0	16.1	15.1
Vocational-technical	3.6	3.5	4.9
	Percent enrolled by February 1984		
Ever attended*	65.8	63.7	84.4
4-year	45.2	42.4	69.6
2-year	27.9	28.3	24.4
Vocational-technical	7.6	7.4	10.2

*Represents the percentage of 1980 graduates who had enrolled in any type of postsecondary institution by February 1984. Since some students attended more than one type of institution during the period, e.g., initially enrolling in a 2-year institution and then transferring to a 4-year school, the sum of the subgroups is greater than the proportion "ever" attending.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond study, unpublished tabulation, 1985.

Tables 5-23.--For all students enrolled in a 4-year college by fall 1980, the percentage remaining by spring 1984 and percentage leaving in each year, by high school sector

	Public	Catholic	Other private
Remaining spring 1984	54.3	60.2	55.6
Left in 3rd year	7.7	5.2	82.0
Left in 2nd year	12.7	13.4	10.9
Left in 1st year	25.3	21.2	31.5

SOURCE: Coleman, J.S., and Hoffer, T., Public and Private High Schools: The Impact of Communities, 1987.

Table 5-24.--Percentage of 1980 high school seniors receiving postsecondary financial aid, by year and type of high school

High school sector	Year in college	Type of college attended 4-year private	 4-year public
		Percent	
Public	Fr. in 1980-81	52.9	39.8
	Soph. in 1981-82	51.6	35.3
	Jr. in 1982-83	52.8	32.8
	Sr. in 1983-84	55.0	33.9
Catholic	Fr. in 1980-81	66.0	18.5
	Soph. in 1981-82	67.2	27.0
	Jr. in 1982-83	61.5	30.1
	Sr. in 1984-84	55.7	28.4
Other private	Fr. in 1980-81	27.7	27.6
	Soph. in 1981-82	24.1	12.6
	Jr. in 1982-83	27.7	5.5
	Sr. in 1983-84	27.2	9.6

NOTE: All types of aid combined; percents only for graduates attending 4-year college.

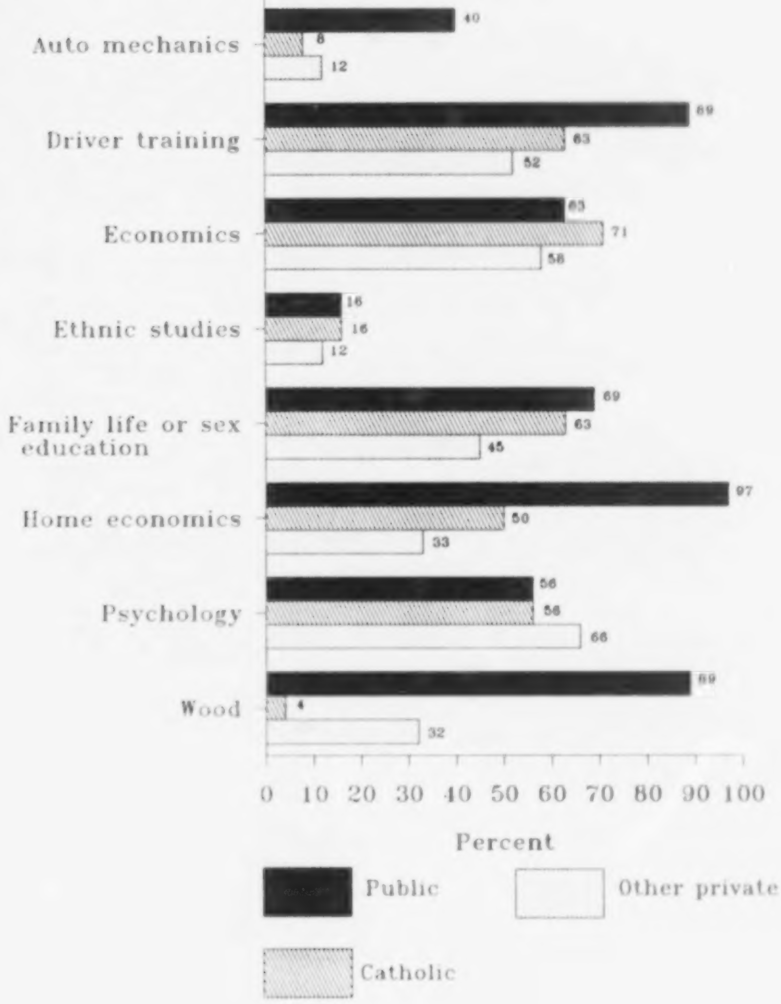
SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond study, "Student Financial Assistance: Grants and Scholarships," unpublished tabulation, 1986.

Table 5-25.--Highest degree attained by 1980 high school seniors: Spring 1986

Student group	Degree	School Sector		
		Public	Catholic	Other private
		Percent		
All students	No high school diploma	1.2	0.1	0.0
	High school diploma	65.7	51.8	50.6
	Postsecondary education license	12.2	10.4	8.4
	Associate degree	7.0	7.4	3.9
	B.A. or B.S.	13.4	29.2	36.5
	M.A. or M.S.	0.5	1.1	0.7
Females	B.A., B.S., M.A., or M.S.	14.1	31.5	35.0
Males	B.A., B.S., M.A., or M.S.	13.5	28.7	39.2
Hispanics	B.A., B.S., M.A., or M.S.	8.6	25.0	25.9
Blacks	B.A., B.S., M.A., or M.S.	8.7	25.1	30.9
Whites	B.A., B.S., M.A., or M.S.	19.0	35.5	39.2

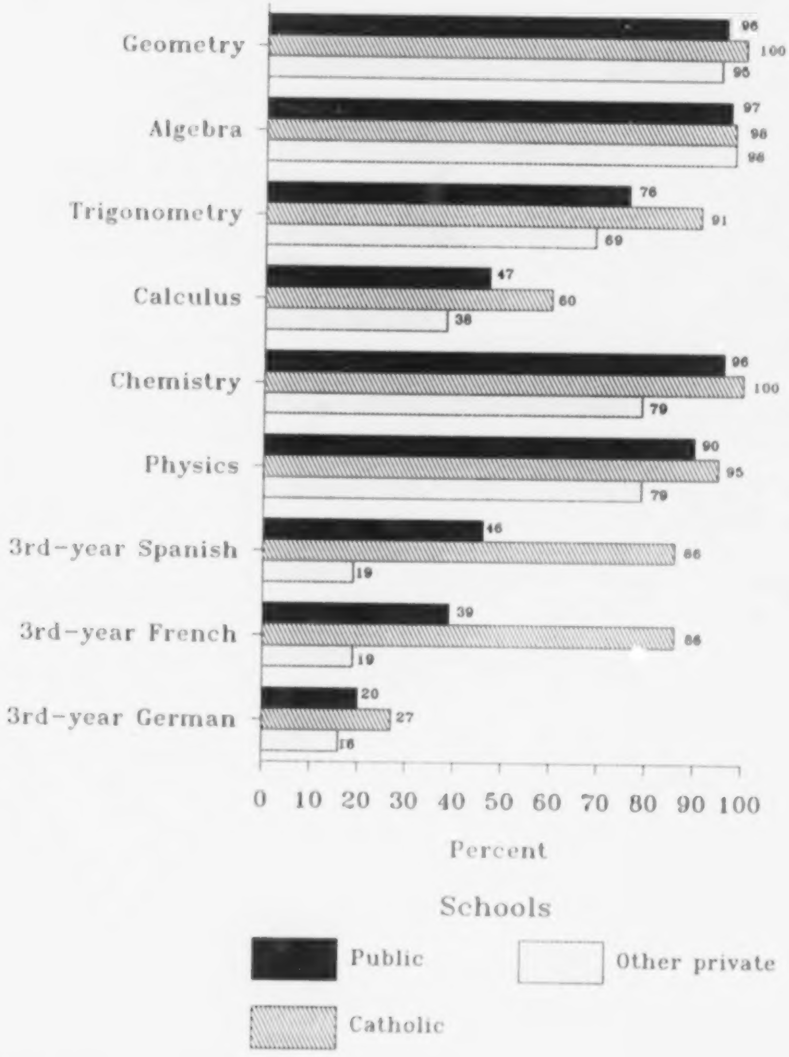
SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond study, unpublished tabulation, 1987.

Figure 5-1.--Percentage of schools offering vocational and personal development courses: 1980



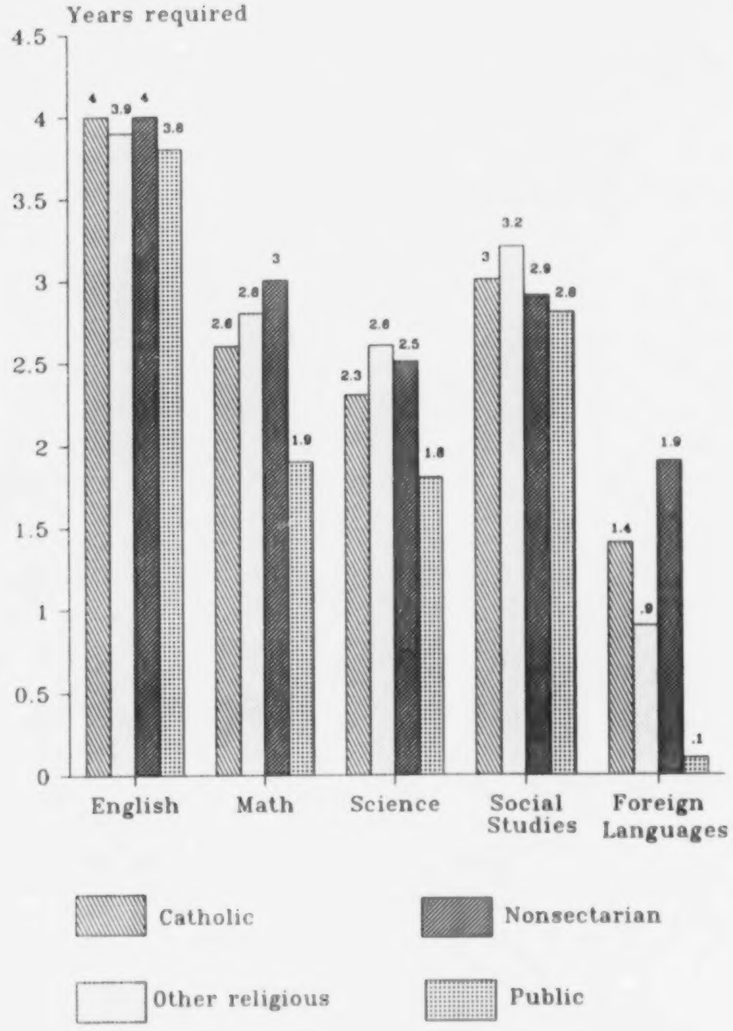
SOURCE: Coleman, J.S., Hoffer, T., & Kilgore, S., High School Achievement: Public, Catholic, and Private Schools Compared, 1982

Figure 5-2.--Percentage of high schools offering specific courses in mathematics, sciences, and foreign languages: 1980



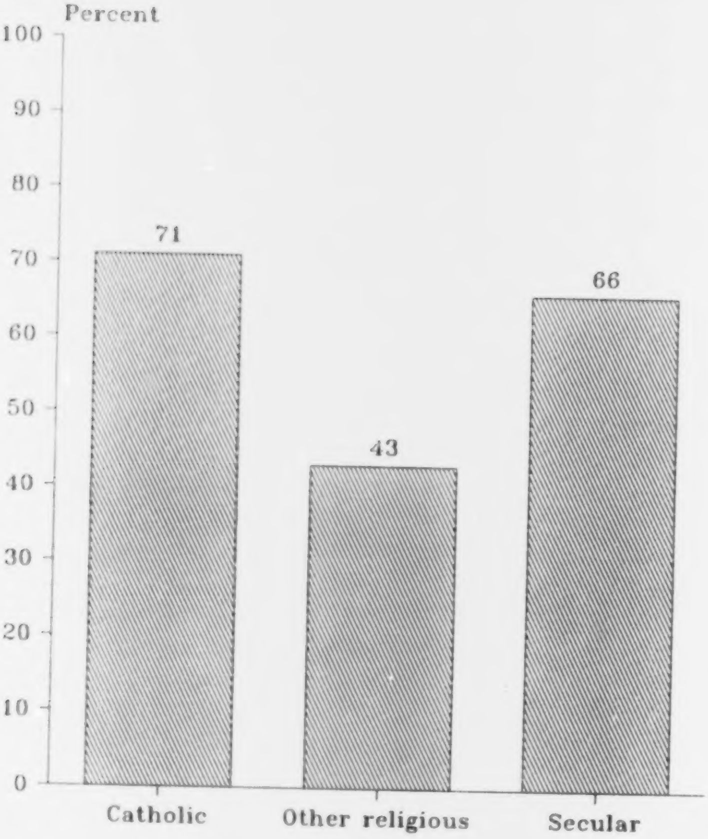
SOURCE: Coleman, J.S., Hoffer, T., and Kilgore, S. High School Achievement: Public, Catholic, and Private Schools Compared, 1982.

Figure 5-3.--Coursework in "new basics" (recommended by the national Commission on Excellence in Education) required for graduation in public (1984-85) and private (1985-86) high schools



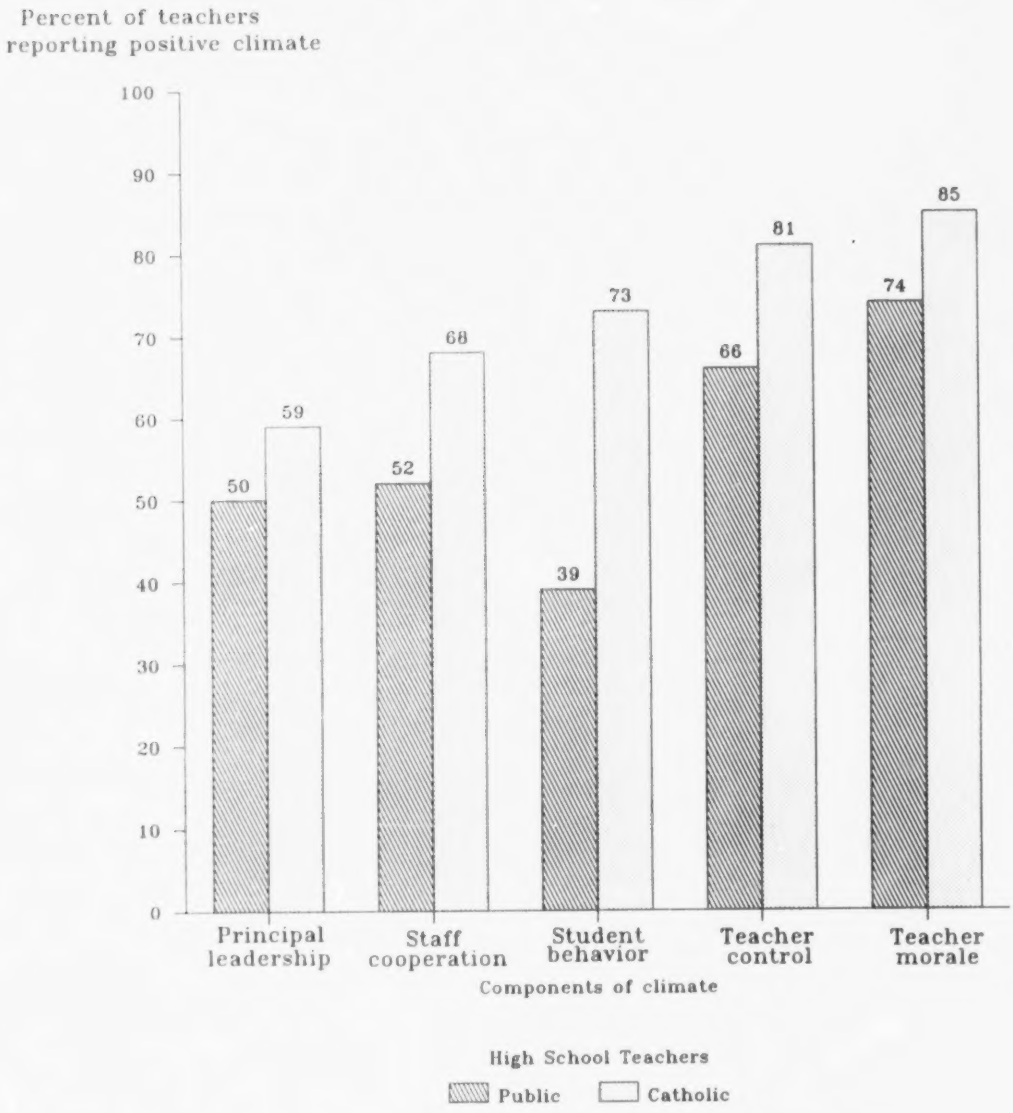
SOURCE: U.S. Department of Education, National Center for Education Statistics, The Condition of Education, 1987.

Figure 5-4.--Percentage of private schools with grades 10, 11, or 12 requiring entrance exams prior to admission: School year 1985-86.



SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

Figure 5-5.--School climate in public and Catholic high schools: 1984



SOURCE: High School and Beyond Administrator and Teacher Survey. Reproduced from Center for Education Statistics, The Condition of Education 1986, p. 83.

CHAPTER 6

PARENTAL CHOICE

Why do parents choose private schools, and how many parents would consider private schools if tuition tax credits were legislated for private school tuition costs? At least one national study designed to address these questions has been conducted. As part of the School Finance Project within the U.S. Department of Education, a national telephone interview survey of 1,200 households with parents of school-age children was conducted in 1982. The sample was derived using random digit dialing and included 1,200 families with children in grades K-11 in the 1981-82 school year.

Of those parents who chose public schools, 52.7 percent indicated that the public schools their children would attend had influenced choice of residence. Presumably, those parents considered schooling alternatives and chose a place of residence either partly or wholly in order to allow their children to attend certain public schools. Nearly one out of five (19.7 percent) considered other schools before selecting public schools. For slightly more than one-third of all public school parents (38.7 percent), neither the existing public schools nor available schooling alternatives affected the choice of where to live (table 6-1). Not considering school alternatives was inversely related to income, was greater for black than white parents, and was greater for parents who had attended public schools. Parents who were educated only in private schools were nearly twice as likely (32 percent) as parents educated only in public schools (18 percent) to consider other schools.

The most important factors associated with current school choices are listed in table 6-2. Parents choosing private schools selected "academic standards and courses" (42 percent) or "values-religion" (30 percent) as the two most frequently selected factors affecting choice. Of public school parents who have considered other shcools, 20 percent named finances as the most important factor in selection.

Among private school parents, the factors associated with choosing private schools varied by type of private school (table 6-3). Parents selecting other religious schools (that is, non-Catholic) chose them for two dominant reasons: the first (43 percent) was "values-religion" and the second, "academic standards and courses" (22 percent). Parents choosing Catholic schools selected the same two factors, but in reverse order: academic courses first (45 percent) and "values-religion" second (30 percent). Parents choosing nonsectarian schools overwhelmingly chose them for academic reasons (63 percent).

What if tuition tax credits were granted? Among public school parents, most (56 percent) reported that they would not switch to private schools under any amount of tuition tax credit (table 7-4). About one-quarter (23.5 percent) reported they would be "very likely" or "somewhat likely" to switch to private schools under a $250 tax credit; 32 percent would switch if the credit was $500, and 44.6 percent would switch if the credit covered all tuition costs.

Several other studies have been conducted on a regional basis. One recent investigation of black private school parents in Chicago added to the school choice formula parents' desire to place their children in a school with racial and social diversity (Slaughter and Schneider 1986). Another suggested that dissatisfaction with public schooling can be a compelling factor in the decision to choose private schools (Gratio 1979). In this regard, in the telephone survey discussed earlier, considerably more public school parents (14.3 percent) than private school parents (3.4 percent) expressed dissatisfaction with the school their children attended (OERI 1983).

REFERENCES

Gratio, M. "Why Parents Choose Nonpublic Schools: Comparative Attitudes and Characteristics of Public and Private School Consumers." Unpublished dissertation, Stanford University. 1979.

Slaughter, D. and B. Schneider. Newcomers: Blacks in Private Schools. Final report to the National Institute of Education. 1986.

U.S. Department of Education. Office of Educational Research and Improvement. Private Elementary and Secondary Education: Congressionally Mandated Study of School Finances. Vol. 2. Washington, DC: 1983.

Table 6-1.--Consideration of schooling alternatives by public school parents: 1982

Respondents	Number	Considered other schools (1)	Public schools influences choice of residence (2)	Both 1 and 2	Neither 1 nor 2
			Percent		
All respondents	1,749	19.7	57.7	11.1	38.7
Race-Ethnicity					
White	1,315	18.0	56.2	11.3	37.0
Black	262	25.9	33.1	8.2	48.7
Hispanic	130	22.5	54.1	15.8	39.4
Other	35	15.4	63.4	10.1	31.7
Income					
Less than $7,500	176	19.9	42.0	8.0	45.5
$7,500 to $14,999	300	19.2	32.4	4.3	53.1
$15,000 to $24,999	447	23.4	54.4	16.3	38.3
$25,000 to $49,999	614	19.2	62.2	12.8	31.2
$50,000 or more	115	15.6	71.3	10.8	24.0
Parents' Schooling					
Public school only	1,356	17.6	51.3	9.7	40.7
Public and private	211	29.9	53.9	15.9	32.5
Private and only	105	32.1	73.2	25.2	20.0

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Education, Office of Educational Research and Improvement. Private Elementary and Secondary Education: Congressional Mandated Study of School Finance, Vol. 2, 1983.

Table 6-2.--Factors associated with current school choice of public and private school parents: 1982

Most important factor	Public school parents		Private school parents
	Did not consider other schools	Considered other schools	
		Percent	
Finances	7.1	19.5	0
Assignment to a school	34.2	0	0
Transportation-convenience	26.3	15.0	3.6
Values-religion	0.1	2.0	29.8
Academic standards and courses	13.2	32.6	41.9
Discipline	0.8	4.7	12.2
Teachers	2.8	14.3	7.1
Sample size	1,347	307	234

SOURCE: U.S. Department of Education, National Center for Education Statistics. Private Elementary and Secondary Education: Congressional Mandated Study of School Finance, Vol. 2, 1983.

Table 6-3.--Factors associated with current parental choice, by school orientation, private school parents only: 1982

Most important factor in choosing current school	Type of private school selected		
	Catholic	Other religious	Nonsectarian
		Percent	
Value/Religion	29.9	42.9	6.9
Academic standards and courses	45.4	22.0	63.1
Discipline	11.8	14.2	7.8
Teachers	5.4	9.0	12.4
Sample size	129	67	36

SOURCE: U.S. Department of Education, Office of Educational Research and Improvement. Private Elementary and Secondary Education: Congressionally Mandated Study of School Finance Vol. 2, 1983.

Table 6-4.--Percentage of public school parents, "very likely" or "somewhat likely" to switch to private schools under tuition tax credits of different levels: 1982

Respondent	If $250 tax credit	If $500 tax credit	If all tuition costs were covered	Would never switch*
All public school parents	23.5	32.0	44.6	55.4
Race-Ethnicity				
White	18.8	26.8	39.3	60.7
Black	37.9	47.2	61.0	39.0
Hispanic	44.1	53.0	65.2	34.8
Other	14.9	29.8	47.8	52.2
Family Income				
Under $7500	32.0	43.9	54.4	45.6
$7,500 to $14,999	32.8	39.0	51.0	49.0
$15,000 to $24,999	29.0	37.8	51.7	48.3
$25,000 to $49,999	16.8	25.8	39.8	60.2
$50,000 or over	10.8	21.5	33.3	66.7

*Figures in this column are based on 100 percent minus the percentage reported in the third column, "If all tuition costs were covered."

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Education, Office of Educational Research and Improvement. Private Elementary and Secondary Education: Congressionally Mandated Study of School Finance, Vol. 2, 1983.

CHAPTER 7

PRIVATE SCHOOL DATA: A LOOK TO THE FUTURE

The quality of national data for both private and public schools has improved considerably in recent years. A concerted Federal effort has been made to collect data on, describe, and explain schooling in both the public and private sectors.

Insofar as many of the reports and tabulations on which this report is based contain additional information not included in this report, researchers interested in private schools may want to explore available private school data further. Many of these reports and tabulations are available through the National Center for Education Statistics. Particularly good sources of additional private school data from NCES are Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study; Private School Enrollment and Tuition Trends (available in The Condition of Education, 1986 edition, published by NCES and available from the Superintendent of Documents, U.S. Government Printing Office and also available as a separate publication); and the Annotated Bibliography of Studies Using Data from High School and Beyond. This bibliography contains 276 references to journal articles, papers, books, and other NCES tabulations (many of which include private school data).

Two annual NCES publications contain some private school data. The Condition of Education and the Digest of Education Statistics are available from the Superintendent of Documents, U.S. Government Printing Office.

Researchers can also acquire data tapes with private school data. A particularly fertile source of data is the High School and Beyond Study's "Teacher and Administrator Survey" (1984), which, to date, has not been analyzed to the extent that the student survey data has been. Other tapes include base-year student data; student followup data in 1982, 1984, and 1986, and a transcript study of 15,000 students. By merging data sets, researchers would have extensive possibilities for advancing knowledge about private schools. For information on data tapes from the 1985-86 Private School Survey and the High School and Beyond Study, call 1-800-424-1616.

Even after the data sources have been thoroughly mined, significant gaps in our understanding of private schools will remain. Some difficulties are inherent in identifying and then estimating the number of private schools, students, and teachers. Related to these estimation problems are a series of ongoing efforts designed to develop a methodology to best measure change over time. In particular, Wray Smith and his associates are conducting research on the methodologies employed in the collection of private school data; this research contributed greatly to the detailed discussion presented in Appendix B. Beyond these basic issues, data needs exist in the areas of school administrators, school finance, governance, mission, nonacademic outcomes, and the varieties of values and religious ideologies and how these relate to school life, programs, and policies. One particular need is to expand private school studies in order to better understand elementary schools and to allow analyses of private school subgroups. Of particular import here is to further disaggregate the private school sector and orientation data.

New developments in federally sponsored national data collections will help close these gaps. These developments are highlighted here, the first two of which are new studies launched in 1988.

- Schools and Staffing Survey (SASS). SASS will provide data needed to examine teacher demand, shortage, and effectiveness as well as to gather basic school-level data, the SASS sample size for private schools will permit descriptive estimates to be made of multiple private school types. One potential possibility is to break other religious and nonsectarian schools into subgroups. NCES plans to continue SASS on a periodic basis. For information contact Mary Rollefson at 202-219-1336.

- Private School Universe Data Collection (PSS). This is a new initiative intended to (1) build an NCES universe frame of private schools of sufficient accuracy and completeness to serve as a sampling frame for NCES surveys of private schools; and (2) provide annual data on the total number of private schools, teachers, and students. For information, contact Elizabeth Gerald at 202-219-1581.

- National Education Longitudinal Study of 1988 (NELS:88). NELS:88 is the third in a series of longitudinal studies sponsored by NCES. Its initial focus is on the eighth grade, with surveys of students, parents, school administrators, and teachers. The base-year study includes a nationally representative sample of 1,000 schools, of which 200 will be private. For information, contact Anne Hafner at 202-219-1767.

- National Assessment of Educational Progress (NAEP). This is a cross-sectional survey of achievement in grades 4, 8, and 12. Conducted every 2 years, the assessment includes reading proficiency plus other areas (for example, writing, U.S. history, citizenship). NAEP uses a national representative sample of all schools. Although previous private school samples have been too small to yield reliable estimates of national private school student achievement, beginning in 1990 the private school sample will be expanded to permit these estimates. For information, contact Gene Owen at 202-219-1746.

APPENDIX A

STANDARD ERRORS

The accuracy of any data is determined by the joint effects of sampling and nonsampling errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. The resulting differences are called sampling errors or sampling variability. In addition, all surveys, both universe and sample, are subject to design, reporting, and processing errors, and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to assess than those produced by sampling variability.

The standard error is the primary measure of sampling variability. The chances are about 68 out of 100 thatan estimate from the sample will differ from a complete census by less than the standard error. The chances are about 90 out of 100 that the difference would be less than 1.65 times the standard error; about 95 out of 100 that the differences would be less than 1.96 times the standard error; and about 99 out of 100 that it would be less than 2.5 times as large. Thus, the standard error provides a specific range with a stated confidence within which a given parameter would lie if a complete census had been conducted. The coefficient of variation of an estimate is the standard error of an estimate expressed as a percent of the estimate.

The standard errors provided in this appendix were computed using statistical procedures designed to incorporate the design of the complex sample survey (for example using procedures such as Taylor series linearization (SESUDAAN, Shah 1980), or balanced half sampling techniques known as balanced repeated replicates (WESVAR, Flyer and Mohadjer 1988)) All direct comparisons cited in the text are significant at the 95 percent confidence level.

In the case of the adjusted estimates described and presented for the total number of schools and students, the relevant coefficients of variation presented in appendix table I.A are actually based on the original unadjusted estimates. These statistics were not recomputed following the statistical adjustment of these estimates. In addition, differences in the subsample defined by any particular study universe may result in different estimates of a specific total. For example, while the full sample from the 1985-86 Private School Study yields an estimate of 404,000 teachers (see table I.A), the estimate of 398,419 teachers in table I.F is based on a subsample that excludes teachers of prekindergarten and ungraded classes.

REFERENCES

Flyer, P. and L. Mohadjer. *The WESVAR Procedure*. Rockville, MD: Westat, Inc., 1988.

Shah, B.V. *SESUDAAN: Standard Errors Program for Computing of Standardized Rates from Sample Survey Data.* Research Triangle Park, NC: Research Triangle Institute, 1981.

I. 1985-86 Private School Study

A. Coefficients of variation for national private school estimates, 1985-86

Item	Estimate	Coefficient of variation
Number of private schools		
All schools	25,600	5.1
Catholic schools	9,900	5.5
Secondary schools	2,400	7.2
Schools charging more than $2,500 tuition	4,400	23.9
Number of private schools with grades 10, 11, or 12		
All schools	7,800	9.1
Catholic schools	1,800	11.3
Schools with 150 to 299 pupils	1,300	16.0
Number of pupils in		
All private schools	5,982,000	6.1
Other religious schools	1,526,000	9.4
Elementary schools	3,343,000	6.6
Schools charging $1,001 to $1,500 tuition	1,613,000	10.1
Number of 1985 high school graduates in		
All private schools	379,000	8.7
Nonsectarian schools	47,000	22.2
Combined schools	56,000	14.8
Percent of schools		
Other religious schools	42	6.8
Elementary schools	60	3.5
Schools with less than 50 pupils	16	13.4
Percent of pupils in		
Catholic schools	60	3.7
Secondary schools	22	7.1
Schools with 50-149 pupils	15	13.2
Percent of graduates applying to college		
All private schools	80	5.7
Catholic schools	81	6.8
Schools with 50 to 149 pupils	71	9.4
Mean pupil per teacher ratio		
All private schools	17	4.5
Catholic schools	21	3.2
Secondary schools	17	6.2

I. 1985-86 Private School Study

A. Coefficients of variation for national private school estimates, 1985-86--Continued

Item	Estimate	Coefficient of variation
Mean enrollment		
All schools	234	3.7
Other religious schools	142	5.7
Elementary schools	218	5.2
Number of private school teachers		
In all schools	404,000	6.7
In other religious schools	127,000	9.2
In elementary schools	190,000	7.4
In schools with 50-149 pupils	81,000	12.9
In schools in operation 10 years or less	48,000	12.3
In schools charging $1,501 to $2,500 tuition	75,000	9.5
Male teachers	97,000	7.6
Female teachers	307,000	7.0
Hispanic teachers	12,000	47.0
Teachers with an advanced degree	124,000	9.9
Full-time teachers	336,000	6.2
Percent of private school teachers		
In Catholic schools	46	5.9
In combined schools	24	7.7
Male teachers	24	4.5
Female teachers	76	1.4
White teachers	92	2.1
Black teachers	4	24.0
Male teachers in elementary schools	10	8.7
Hispanic teachers in schools in operation 25 or more years	2	33.7
Teachers with a bachelor's degree	64	2.4
Teachers with an advanced degree in schools with 600 or more pupils	45	5.5
Teachers with 5 to 9 years experience in schools charging $1,001 to $1,500 tuition	27	10.2
Full-time teachers in secondary schools	81	1.5
Part-time teachers in schools in operation 11 to 24 years	20	11.0

SOURCE: U.S. Department of Education, National Center for Education Statistics. Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

I. 1985-86 Private School Study

B. Standard errors for average years of coursework required for high school graduation in private schools with grade 12: 1985-86

School characteristic	Number of schools with grade 12	Subject area				
		Mathematics	Science	English	Foreign languages	Social studies
		Standard errors				
Total	8,464	0.1	0.1	0.02	0.1	0.1
Orientation						
Catholic	1,764	.1	.1	.01	.2	.1
Other religious	4,399	.2	.1	.03	.2	.1
Nonsectarian	2,301	.2	.1	.02	.1	.2
Type/level*						
Secondary	2,430	.1	.1	.02	.2	.1
Combined	4,046	.2	.1	.04	.2	.1
Other	1,987	.2	.2	.00	.4	.5

*Secondary and combined are regular schools, while other schools are primarily alternative schools. Secondary schools have no grade lower than 7, while combined schools have at least one grade lower than 7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987, and unpublished tabulations.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

A. Standard errors for percentage of public and private school teachers, by sex, race/ethnicity, highest degree, and years of teaching experience: Public schools 1984-85 and private schools 1985-86

Teacher characteristic	Public schools 1984-85	Private schools, 1985-86			
		Total	Catholic	Other religious	Nonsectarian
Total number of teachers (in thousands)					
	1,989	348	168	103	77
Standard errors for percentages					
Sex					
Male	0.6	3.8	4.5	3.7	4.1
Female	.6	3.8	4.5	3.7	4.1
Race/ethnicity					
White, non-Hispanic	.5	2.2	2.4	2.1	8.2
Black, non-Hispanic	.4	1.4	1.2	1.3	5.9
Other[1]	.3	1.1	1.4	1.1	0.9
Highest degree					
Less than bachelor's	.1	1.1	0.8	3.2	1.0
Bachelor's	.7	4.4	4.4	5.9	6.0
More than bachelor's	.7	5.0	4.6	6.6	6.0
Years of full-time teaching experience[2]					
Less than 5	.5	5.1	2.9	8.0	8.8
5-9	.6	1.7	1.0	3.8	5.7
10 or more	.7	4.7	2.9	6.2	9.2

[1] Includes Hispanic, American Indian or Alaskan Native, and Asian or Pacific Islander

[2] Includes full-time teaching for less than the entire school year for some private school teachers.

NOTE: Data cover only full-time school staff with teaching as a primary assignment. Detail may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The 1985 Public School Survey and 1985-86 Private School Study, unpublished tabulations, October 1986.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

B. Standard errors for distribution of full-time public and private school teachers, by base academic year salary category: Public schools 1984-85 and private schools 1985-86

Salary category	Public school teachers, 1984-85		Private school teachers, 1985-86[1]	
	Percent	Number[2]	Percent	Number[2]
Total	100.0	8,257	100.0	4,704
$ 0	0	0	.5 (.12)	25
1 - 9,999	.2 (.07)	10	17.8 (2.6)	821
10,000 - 14,999	6.1 (.42)	445	39.4 (1.9)	1,952
15,000 - 24,999	60.8 (.85)	4,878	37.3 (2.6)	1,710
25,000 - 34,999	30.0 (.80)	2,666	4.6 (.78)	180
35,000 or more	3.1 (.32)	258	.3 (.14)	16

[1] Includes some private school teachers who reported no salary.

[2] Number of teachers in the sample responding in each category.

NOTE: Standard errors of estimates are presented in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-86," 1989.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

C. Standard errors for average base academic year salaries of full-time public and private school teachers, by years of teaching experience: Public schools 1984-85 and private schools 1985-86

	Public school teachers			Private school teachers		
Years of experience	1984-85 salary	Number[1]	Salary in 1985-86 dollars[2]	1984-85 salary	Number[1]	Salary difference
All teachers	$22,701 (116)	8,257	$24,335	$14,400 (446)	4,679	$9,935
5 or less	16,395 (138)	1,068	17,575	12,191 (356)	1,409	5,384
6 to 10	19,307 (129)	1,586	20,697	14,500 (640)	1,126	6,197
11 to 15	22,970 (154)	1,933	24,624	16,415 (597)	830	8,209
16 to 20	25,839 (191)	1,570	27,699	18,069 (571)	461	9,630
21 to 25	26,943 (274)	922	28,883	16,546 (708)	277	12,337
26 to 30	27,812 (337)	495	29,814	16,326 (789)	124	13,488
More than 30	26,912 (330)	447	28,850	12,223 (660)	250	16,627
Not answered	--	236		--	202	

--Not applicable.

[1] Number of teachers in the sample responding in each category.

[2] Using a public school teacher inflation factor of 7.2 percent.

NOTE: Includes only full-time teachers who had salaries. Standard errors of estimates are presented in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statisitcs, "Teacher Compensation: A Comparison of Public and Private School Teachers, 1984-86." 1989.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

D. Standard errors for population and estimates, and percentages of selected characteristics of teachers by public and private school control: Public schools 1984-85 and private schools 1985-86

	Public (N=8,392)			Private (N=5,249)			Public/Private	
Characteristics	Population estimate	Estimated percentage	Standard Error	Population Estimate	Estimated Percentage	Standard Error	Percentage Difference	Z
All Teachers	2,055,839	100.0	--	398,419	100.0	--	--	--
Highest Degree								
Less than Bachelor's	18,503	0.9	0.1	20,319	5.1	0.5	-4.2	-8.2
Bachelor's	1,054,645	51.3	0.8	254,988	64.0	1.1	-12.7	-9.3
Master's or Higher	982,691	47.8	0.8	123,111	30.9	1.1	16.9	12.4
Academic Major								
Education	1,476,092	71.8	0.7	212,756	53.4	1.3	18.4	12.5
Noneducation	219,975	10.7	0.4	136,259	34.2	1.3	-23.5	-17.3
Both	359,772	17.5	0.5	48,209	12.1	0.6	5.4	6.9
Recent Training								
College Credit Only	347,437	16.9	0.8	80,481	20.2	1.2	-3.3	-2.3
Inservice Only	425,559	20.7	0.9	56,974	14.3	1.1	6.4	4.5
Other Only	74,010	3.6	0.3	23,905	6.0	1.0	-2.4	-2.3
Combination	407,056	19.8	0.9	53,388	13.4	1.1	6.4	4.5
None Recently	797,666	38.8	0.7	183,671	46.1	1.0	-7.3	-6.0
Race/Ethnicity								
Minority	1,778,301	13.3	0.5	367,741	7.7	0.7	5.6	6.5
White	277,538	86.7	0.6	30,678	92.3	0.7	-5.6	-6.1
Gender								
Female	1,395,915	67.9	0.7	301,603	75.7	1.2	-7.8	-5.6
Male	659,924	32.1	0.7	96,816	24.3	1.2	7.8	5.6
Age								
Younger than 30 years	281,650	13.7	0.5	94,824	23.8	1.0	-10.1	-9.0
30 - 34	351,548	17.1	0.5	71,715	18.0	0.7	-0.9	-1.0
35 - 39	470,787	22.9	0.6	78,887	19.8	0.7	3.1	3.4
40 - 44	328,934	16.0	0.5	55,380	13.9	0.6	2.1	2.7
45 - 49	236,421	11.5	0.4	36,655	9.2	0.5	2.3	3.6
50 or older	338,554	18.9	0.6	60,560	15.2	0.6	3.7	4.4
Full-time Teaching Experience								
Less than 5 years	246,701	12.0	0.5	123,908	31.1	1.0	-19.1	-17.1
5 - 9	425,559	20.7	0.6	103,987	26.1	0.9	-5.4	-5.0
10 - 14	499,569	24.3	0.6	74,504	18.7	0.7	5.6	6.1
15 - 19	402,944	19.6	0.6	41,037	10.3	0.5	9.3	11.9
20 - 24	230,254	11.2	0.4	22,710	5.7	0.4	5.5	9.7
25 or more	250,812	12.2	0.5	32,272	8.1	0.5	4.1	5.8

-- Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The 1985 Public School Survey and 1985-86 Private School Study, unpublished tabulations, October 1986.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

E. Standard errors for percentages of selected teacher characteristics by public and private school control and elementary and secondary school teaching levels: Public schools 1984-85 and private schools 1985-86

	Elementary						Secondary					
	Public	(N-3975)	Private	(N-3528)	Public/Private		Public	(N-4417)	Private	(N-1721)	Public/Private	
Characteristics	Estimated percentage	Standard error	Estimated percentage	Standard error	Percentage difference	Z	Estimated percentage	Standard error	Estimated percentage	Standard error	Percentage difference	Z
Highest Degree												
Less than bachelor's	0.4	0.1	6.6	0.6	-6.2	-10.2	2.0	0.3	2.2	0.5	-0.2	-0.3
Bachelor's	54.6	1.0	71.7	1.1	-17.1	-11.5	44.8	1.0	49.4	1.8	-4.6	-2.2
Master's or higher	45.0	1.0	21.7	1.1	23.3	15.7	53.2	1.0	48.4	1.8	4.8	2.3
Academic Major												
Education	75.3	0.9	62.8	1.3	12.5	7.9	64.7	0.9	37.1	2.2	27.6	11.6
Noneducation	8.4	0.6	23.8	1.2	-15.4	-11.5	15.2	0.7	53.1	2.2	-37.9	-16.4
Both	16.2	0.7	13.4	0.7	2.8	2.8	20.0	0.7	9.9	0.9	10.1	6.9
Recent Training												
College credit only	16.2	1.1	20.1	1.4	-3.9	-2.2	18.4	1.2	20.6	2.4	-2.2	-0.8
Inservice only	22.3	1.2	17.1	1.3	5.2	2.9	17.9	1.2	8.9	2.0	9.0	3.9
Other only	3.7	0.6	5.8	1.1	-2.1	-1.7	3.7	0.7	6.3	1.9	-2.6	-1.3
Combination	21.8	1.2	14.9	1.2	6.9	4.1	16.1	1.2	10.7	1.9	5.4	2.4
None recently	36.2	1.0	42.2	1.1	-6.0	-4.0	44.0	1.0	53.5	1.8	-9.5	-4.6
Race/Ethnicity												
Minority	15.1	0.7	8.8	1.0	6.3	5.2	10.4	0.6	5.7	0.8	4.7	4.7
White	84.9	0.7	91.2	1.0	-6.3	-5.2	89.6	0.6	94.3	0.8	-4.7	-4.7
Gender												
Female	78.5	0.9	88.5	0.8	-10.0	-8.3	47.5	1.0	51.3	2.0	-3.8	-1.7
Male	21.5	0.9	11.5	0.8	10.0	8.3	52.5	1.0	48.7	2.0	3.8	1.7
Age												
Younger than 30 years	14.1	0.7	25.7	1.2	-11.6	-8.3	12.8	0.6	20.3	1.4	-7.5	-4.9
30 - 34	17.7	0.7	17.4	0.9	0.3	0.3	16.0	0.7	19.2	1.2	-3.2	-2.3
35 - 39	22.0	0.8	19.0	0.9	3.0	2.5	24.6	0.8	21.3	1.4	3.3	2.0
40 - 44	15.6	0.7	13.6	0.7	2.0	2.0	16.8	0.7	14.5	1.0	2.3	1.9
45 - 49	11.5	0.6	9.2	0.6	2.3	2.7	11.5	0.6	9.2	0.9	2.3	2.1
50 or older	19.1	0.7	15.1	0.7	4.0	4.0	18.4	0.8	15.4	1.2	3.0	2.1
Full-time Teaching Experience												
Less than 5 years	12.5	0.7	31.9	1.1	-19.4	-14.9	11.0	0.6	29.4	2.0	-18.4	-8.8
5 - 9	21.3	0.8	27.8	1.1	-6.5	-4.8	19.5	0.7	22.9	1.4	-3.4	-2.2
10 - 14	25.0	0.8	18.0	0.8	7.0	6.2	22.9	0.8	20.1	1.2	2.8	1.9
15 - 19	18.7	0.7	9.1	0.6	9.6	10.4	21.4	0.8	12.7	1.1	8.7	6.4
20 - 24	10.8	0.6	5.5	0.5	5.3	6.8	12.2	0.6	6.1	0.8	6.1	6.1
25 or more years	11.8	0.6	7.7	0.5	4.1	5.2	13.1	0.7	8.9	1.0	4.2	3.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, The 1985 Public School Survey and 1985-86 Private School Study, unpublished tabulations, October 1986.

II. 1985-86 Private School Study and The 1984-85 Public School Survey

F. Standard errors for average number of hours teachers spent per week on school-related activities within and outside required school hours: Public schools 1984-85 and private schools 1985-86

School-related activities	Public school teachers, 1984-85	Private school teachers, 1985-86
	(In Thousands)	
Total number of teachers	1,989	348
	Standard errors for average hours during most recent week [*]	
Total	0.2	0.3
During required school hours	.1	.2
Classroom teaching	.1	.4
Outside of required school hours	.1	.2

[*] Reported by public and private school teachers. Data cover full-time school staff whose primary assignment was teaching.

NOTE: Detail may not add to totals due to rounding.

SOURCE: U.S. Department of Education. National Center for Education Statistics. "ED-TABS: The 1985 Public School Survey". Early Tabulations (November, 1986) and Private Schools and Private School Teachers: Final Report of the 1985-86 Private School Study, 1987.

III. 1985-86 Private School Study and 1984 High School and Beyond, Administrator and Teacher Survey

A. Standard errors percent of secondary school teachers ranking goals for students as very important ("1" and "2" out of 8), by school characteristics: Public schools 1983-84 and private schools 1985-86

Goals for students	School type*				
	Public	Private			
		Total	Catholic	Other religious	Non-sectarian
Literacy skills	64 (0.7)	46 (1.4)	42 (2.0)	46 (2.6)	51 (3.5)
Academic excellence	37 (0.7)	30 (2.1)	30 (2.1)	26 (3.8)	34 (3.8)
Citzenship	11 (0.5)	4 (0.7)	4 (0.6)	3 (2.0)	4 (0.9)
Occupational skills	10 (0.6)	2 (0.3)	2 (0.4)	2 (0.5)	2 (0.7)
Good work habits/self discipline	48 (0.7)	30 (1.9)	29 (2.1)	22 (2.9)	40 (3.6)
Personal growth	26 (0.7)	37 (1.8)	37 (1.7)	31 (3.6)	41 (4.8)
Human relations skills	17 (0.7)	14 (1.1)	14 (1.2)	10 (2.0)	41 (3.4)
Moral or religious values	11 (0.5)	41 (3.6)	41 (1.6)	61 (6.5)	6 (1.1)

*For public schools the sum of the eight rankings across each data item is 100 percent, but item-specific nonresponse yields nonadditive results across the eight goals. For private schools imputations used for missing data yield additive results both across the eight rankings within each data item and across the eight data items for each of the eight rankings. As a result, since the first and second most important goals are combined, the percents for each of the private school types add to 200 percent (with rounding error).

NOTE: Standard errors of estimates are presented in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study. U.S. Department of Education, Office of Research, High School and Beyond Administrator and Teacher Survey, 1984.

III. 1985-86 Private School Study and 1984 High School and Beyond, Administrator and Teacher Survey

B. Standard errors for percentage of public and private secondary school teachers holding selected opinions of school administration: Public schools 1983-84 and private schools 1985-86

	School type[*]				
School-related statement	Public	Private			
		Total	Catholic	Other religious	Non-sectarian
Principal communicates desires to staff	67 (1.3)	82 (1.7)	81 (1.5)	82 (3.4)	82 (2.9)
Administration knows problems faced by staff	61 (1.0)	78 (1.2)	79 (2.3)	80 (3.3)	75 (2.1)
Administration is supportive and encouraging of staff	67 (1.1)	82 (1.0)	81 (1.6)	84 (2.1)	81 (2.6)
Teachers and administrators agree on discipline policy	63 (1.3)	81 (1.2)	80 (2.1)	84 (2.5)	80 (3.3)
Principal lets staff know expectations	69 (1.1)	83 (1.1)	83 (1.3)	84 (1.5)	82 (2.6)
Principal interested in innovation and new ideas	65 (1.1)	83 (1.4)	80 (2.1)	84 (1.7)	85 (2.8)
Necessary materials are available to staff	66 (1.2)	84 (1.7)	86 (1.1)	84 (3.3)	82 (4.7)
Principal does poor job getting resources[1]	26 (1.0)	16 (1.2)	17 (1.4)	17 (2.3)	15 (3.0)

[1] In the case of a negative statement, the percent responding positively is (100 - percent in agreement).

NOTE: Standard errors of estimates are presented in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study. U.S. Department of Education, Office of Research, High School and Beyond Administrator and Teacher Survey, 1984.

III. 1985-86 Private School Study and 1984 High School and Beyond, Administrator and Teacher Survey

C. Standard errors for percentage of public and private secondary school teachers holding selected opinions of fellow teachers: Public schools 1983-84 and private schools 1985-86

School-related statement	School type*				
	Public	Private			
		Total	Catholic	Other religious	Non-sectarian
Colleagues share beliefs and values re school mission	72 (0.8)	82 (1.0)	80 (1.6)	85 (1.3)	81 (2.5)
Cooperative effort among staff	67 (0.9)	88 (1.1)	85 (1.8)	87 (2.0)	92 (1.3)
Staff maintains high standards of performance	79 (0.7)	93 (1.7)	91 (1.0)	93 (4.0)	95 (1.6)
School seems like big family-cordial and close	41 (1.1)	79 (1.6)	78 (2.1)	81 (3.9)	79 (2.4)
Staff does not have much school spirit*	47 (1.1)	23 (2.2)	24 (2.2)	21 (3.6)	25 (3.4)

*In the case of a negative statement, the percent responding positively is (100 - percent in agreement).

NOTE: Standard errors of estimates are presented in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1985-86 Private School Study. U.S. Department of Education, Office of Research, High School and Beyond Administrator and Teacher Survey, 1984.

IV. U.S. Bureau of Census, Current Population Survey

A. Standard errors for Bureau of Census estimates of public and private school enrollments, Kindergarten through grade 12 (K-12): Selected years 1980-85

Year (fall)	Public school			Private school			Private school enrollment as a percent of total enrollment		
	Total K-12	K-8	9-12	Total K-12	K-8	9-12	Total K-12	K-8	9-12
1980	--	130	--	--	87	--	--	.3	--
1981	251	136	162	102	93	52	.2	.3	.3
1983	249	141	164	104	94	51	.2	.3	.4
1985	249	140	165	104	94	52	.2	.3	.4

-- Not available.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, "School Enrollment Social and Economic Characteristics of Students: October 1984 and 1985", Series P-20, No. 426, (Washington, DC: 1988).

IV. U.S. Bureau of Census, Current Population Survey

B. Standard errors, percentage of all students attending private schools, by region and metropolitan status: Selected years 1979-85

Metropolitan status and region	Standard errors in percent (population size in thousands) for proportion of October enrollment, grades 1-12, attending private schools		
	1979	1982	1985
U.S.	0.2 (42,981)	0.2 (41,534)	0.2 (40,845)
Region			
Northeast	0.5 (9,734)	0.6 (8,774)	0.6 (8,224)
North Central	0.4 (11,198)	0.5 (10,743)	0.5 (10,365)
South	0.3 (14,482)	0.3 (13,782)	0.3 (14,218)
West	0.4 (7,567)	0.5 (8,235)	0.5 (8,038)
Metropolitan status			
Central city	0.5 (11,106)	0.5 (10,969)	0.5 (10,115)
Suburb	0.3 (17,329)	0.4 (16,599)	0.4 (16,885)
Nonmetropolitan	0.3 (14,546)	0.3 (13,966)	0.3 (13,845)

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, "Private School Enrollment, Tuition, and Enrollment Trends: October 1979", Series P-23, No. 121, 1982, and Bianchi, S., "Private School Enrollment: Trends and Debates," Research in Sociology of Education and Socialization 3, 1982.

IV. U.S. Bureau of Census, Current Population Survey

C. Standard errors for percentage of children in grades 1-12 enrolled in private schools, by race and ethnicity, control of school, and family income: October 1985

	Standard errors in percent (population size in thousands)							
	All children				White			
Family income	Total enrolled	Total private	Church-related	Non-sectarian	Total enrolled	Total private[1]	Church-related	Non-sectarian
Total[2]	(40,206)	0.2	0.2	0.1	(32,482)	0.3	0.3	0.1
Less than $7,500	(5,713)	0.4	0.3	0.1	(3,228)	0.6	0.5	0.2
$7,500 to $14,999	(6,339)	0.4	0.4	0.1	(4,651)	0.6	0.5	0.2
$15,000 to $24,999	(8,470)	0.5	0.4	0.1	(6,955)	0.5	0.5	0.2
$25,000 to $34,999	(7,410)	0.6	0.6	0.2	(6,619)	0.6	0.6	0.2
$35,000 to $49,999	(6,274)	0.7	0.6	0.2	(5,572)	0.7	0.7	0.3
$50,000 and over	(4,568)	0.9	0.8	0.5	(4,221)	0.9	0.8	0.5

	Black				Hispanic[3]			
Family income	Total enrolled	Total private	Church-related	Non-sectarian	Total enrolled	Total private[1]	Church-related	Non-sectarian
Total[2]	(6,325)	0.4	0.3	0.2	(3,908)	0.6	0.6	0.1
Less than $7,500	(2,253)	0.4	0.3	0.2	(1,026)	0.9	0.8	0.4
$7,500 to $14,999	(1,441)	0.7	0.6	0.2	(1.047)	1.1	1.1	--
$15,000 to $24,999	(1,262)	0.9	0.7	0.4	(889)	1.5	1.4	0.2
$25,000 to $34,999	(590)	1.8	1.6	0.6	(503)	2.2	2.1	0.7
$35,000 to $49,999	(473)	1.9	1.5	1.0	(218)	3.7	3.7	--
$50,000 and over	(150)	4.7	3.8	2.8	(124)	5.8	5.8	--

-- Not available.

[1] Includes some students for whom control of the private school was not reported.
[2] Includes some students for whom income was not reported.
[3] Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, "October 1985 Supplement" to Current Population Survey, unpublished tabulations.

V. High School and Beyond Study

A. Standard errors of the estimated percent participating in selected programs of the High School and Beyond survey: 1980

Subgroup	Estimated percent	Standard error of estimated percent	90 percent confidence interval (1.65 x standard error)
All students or whites	10 (or 90)	0.3	9.5 to 10.5 (89.5 to 90.5)
	30 (or 70)	.4	29.3 to 30.7 (69.3 to 70.7)
	50	.5	49.2 to 50.8
Males or females	10 (or 90)	.4	9.4 to 10.6 (89.4 to 90.6)
	30 (or 70)	.6	29.0 to 31.0 (69.0 to 71.0)
	50	.6	49.0 to 51.0
Blacks	10 (or 90)	.7	8.8 to 11.2 (88.8 to 91.2)
	30 (or 70)	1.1	28.2 to 31.8 (68.2 to 71.8)
	50	1.2	48.1 to 51.9
Hispanics	10 (or 90)	.8	8.7 to 11.3 (88.7 to 91.3)
	30 (or 70)	1.2	28.0 to 32.0 (68.0 to 72.0)
	50	1.3	47.8 to 52.2

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1987, 1987.

V. High School and Beyond Study

B. Standard errors for school climate in public and Catholic high schools: 1984

Components of climate	Teacher in public schools	Teachers in Catholic schools
	(percent)	
Principal leadership	0.5	2.0
Staff cooperation	0.5	1.9
Student behavior	0.5	1.8
Teacher control over school and classroom policy	0.5	1.6
Teacher morale	0.5	1.4

SOURCE: U.S. Department of Education, National Institute of Education, Consortium for the Study of Effective Schools, High School and Beyond Administrator and Teacher Survey, 1984, unpublished tabulations.

V. High School and Beyond Study

C. Standard errors for postsecondary enrollment rates for 1980 high school graduates

Type of institution	All graduates	Public school graduates	Private school graduates
		For percent enrolled in October 1980	
Any postsecondary institution	0.8	0.8	2.1
4-year	.7	.8	2.3
2-year	.6	.6	1.7
Vocational/technical	.3	.3	1.0
		For percent enrolled by February 1984	
Any postsecondary program	.7	.8	1.7
4-year	.8	.8	2.1
2-year	.7	.7	2.0
Vocational/technical	.4	.4	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, "High School and Beyond Study," unpublished tabulations, 1985.

V. High School and Beyond Study

D. Approximate standard errors for percentages based on principal classifications used in report

Estimated percentages	U.S. total	Public	Private			High-performance schools	
			Total	Catholic	Other private	Public	Private
Sophomores							
p = 50 percent	0.46	0.47	1.84	1.82	5.17	4.20	6.91
p = 90 percent or 10 percent	0.28	0.28	1.10	1.09	3.10	2.52	4.15
Seniors							
p = 50 percent	0.48	0.48	1.98	1.96	5.73	4.59	7.45
p = 90 percent or 10 percent	0.29	0.29	1.19	1.18	3.44	2.76	4.47

SOURCE: Coleman, J.S., and Hoffer, T. Public and Private High Schools: The Impact of Communities, 1987.

V. High School and Beyond Study

E. Means and standard deviations for sophomore test scores in public and private schools: Spring 1980

Test	U.S. total	Major sectors			High-performance schools	
		Public	Catholic	Other private	Public	Private
Means						
Reading (19)[1]	9.1	8.9	10.5	10.5	11.7	14.5
Vocabulary (21)	10.9	10.7	12.9	13.1	14.1	17.6
Mathematics (28)	18.6	18.3	21.5	22.3	24.9	30.2
Science (20)	10.9	10.8	11.9	12.4	13.2	15.1
Civics (10)	5.8	5.8	6.5	6.4	7.1	7.8
Writing (17)	10.3	10.1	11.9	11.5	12.8	14.7
Standard deviations[2]						
Reading	3.9	3.8	3.6	3.9	4.1	2.8
Vocabulary	4.4	4.3	3.9	4.5	4.2	2.6
Mathematics	7.4	7.4	6.6	7.8	7.5	4.8
Science	3.8	3.8	3.3	3.5	3.5	2.4
Civics	2.0	2.0	1.9	1.9	1.9	1.4
Writing	4.0	4.0	3.5	3.8	3.4	2.0

[1] Numbers in parentheses refer to total number of test items.

[2] Standard deviations shown are standard deviations of individual test scores. Standard errors for sector mean achievement may be found by multiplying the standard deviations shown by the following numbers:

	U.S. total	Public	Catholic	Other private	Public	Private
Sophomores	.006	.006	.019	.044	.054	.055
Seniors	.006	.007	.020	.048	.062	.058

SOURCE: Coleman, J.S., and Hoffer, T. Public and Private High Schools: The Impact of Communities, 1987.

V. High School and Beyond Study

F. Means and standard deviations for sophomore test scores in public and private schools: Spring 1980

Test	U.S. total	Major sectors: Public	Major sectors: Catholic	Major sectors: Other private	High-performance schools: Public	High-performance schools: Private
Means						
Reading (20)[1]	10.9	10.8	11.9	13.0	13.5	16.0
Vocabulary (27)	13.1	12.9	15.1	15.9	18.0	21.6
Mathematics (32)	19.1	18.9	21.1	22.4	23.9	28.1
Picture Number (15)	11.3	11.3	12.1	11.9	11.6	13.0
Mosaic (89)	45.3	45.2	47.3	51.0	54.2	55.3
Visual (16)	7.7	7.7	7.5	8.6	8.8	9.8
Standard deviations[2]						
Reading	4.2	4.2	3.8	4.2	4.0	2.6
Vocabulary	5.4	5.3	5.1	6.0	5.7	3.7
Mathematics	6.3	6.3	5.6	6.1	5.7	2.7
Picture number	3.7	3.7	3.3	3.5	3.5	2.8
Mosaic	14.6	14.6	12.6	14.7	16.0	14.5
Visual	3.1	3.1	3.0	3.2	3.2	3.3

[1] Numbers in parentheses refer to total number of test items.

[2] See footnote b, table 6-1 for calculating standard errors for sector means.

SOURCE: Coleman, J.S., and Hoffer, T. Public and Private High Schools: The Impact of Communities, 1987.

APPENDIX B

DATA COLLECTION PROCEDURES

I. THE PRIVATE SCHOOL SURVEY, 1980-81

NCES conducted a national survey in 1980-81 similar in scope to several studies conducted during the 1970s. NCES contracted with two organizations to carry out the data collection for the survey.

Survey design and data collection

Catholic schools were surveyed on behalf of NCES by the National Catholic Educational Association (NCEA), which mailed a questionnaire to schools in each diocesan school system. All non-Catholic private schools identified in an updated NCES list of private schools were sent a questionnaire by Evaluation Policy Research Associates (EPRA). Schools with a first grade or higher were intended to be included in the universe.

Estimation procedures

For the 1980-81 survey, methodology reports were not prepared for either the Catholic school data collection or the non-Catholic school data collection. NCES files do not contain any detailed documentation on nonresponse, sampling or nonsampling errors, or imputation procedures. The NCES Early Release (NCES 1981) on the results of the 1980-81 survey stated that imputation for item nonresponse "raised the totals only slightly (that is, private school enrollments went up 1.3 percent)."

II. THE PRIVATE SCHOOL SURVEY FOR 1983-84

The Private School Survey for school year 1983-84 (PSS 1983-84) was conducted for NCES by Westat, Inc. A national sample of private schools was used to obtain information about enrollment, student body composition, number of teachers, qualifications of teachers, services provided, and academic requirements.

Survey design and data collection

The sample was designed by NCES to represent all private schools in the United States excluding Alaska. The sample consisted of private schools drawn from an updated NCES list of private schools (the list sample) in addition to a sample of schools missing from the NCES list (the area sample) from which a subsample was allocated for site visits. All aspects of data collection and data entry were carried out by Westat, Inc.

School eligibility for the survey was more restricted in this study than in some previous surveys. Schools were considered out of scope if any of the following conditions were present:

- The school was closed or merged with another school.
- The school did not meet the study definition of a school, which was:
  - Minimum length of school day must be 4 hours;
  - Minimum length of school term must be 160 days;
  - Instruction must be provided to students at or above the first grade level and exclude schools that serve the postsecondary population exclusively;
  - Instruction must be provided at a site other than a private home; and
  - The school must be privately administered.

o The school on the NCES list could not be contacted after extensive mail and telephone follow-up.

The list used for the list sample was created by updating the 1980 NCES list of approximately 21,000 private schools. The list was updated from available 1982-83 State directories, with limited effort applied to eliminating duplicates and checking that schools listed agreed with the NCES definition of a private school.

The 26,739 schools on the list after updating were then stratified into 12 strata by religious affiliation and grade level. Each school was assigned a measure of size equal to the square root of its enrollment as given by the most recent data available. As estimates of the number of schools with a certain characteristic are best derived from an equal probability sample, and estimates of number of students are more precise when probabilities proportionate to enrollment are used, the square root of enrollment was used as a measure of size because it was intermediate between two goals with conflicting "best" sampling procedures. For each of the 12 strata, using probabilities proportionate to the measures of size, a systematic sample of the allocated sample size was selected. One school whose probability of selection was greater than 0.75 was selected with certainty. The sample of schools selected was found to include 14 schools that were members of a pilot study conducted by NCES. Subsequently, adjacent schools in the NCES list for the stratum were used as replacements in the sample for these 14 schools.

The frame for the area sample consisted of 100 primary sampling units (PSUs) selected from 2,497 PSUs. Each consisted of a single county or independent city, or a cluster of geographically contiguous areas, with a minimum population of 10,000 according to the 1980 Census of Population. The counties of Alaska were excluded from the area frame.

The eight PSUs with populations greater than 1,700,000 were included in the sample with certainty. The noncertainty PSUs were divided in the sample with certainty. The noncertainty PSUs were divided into 16 strata by census region (four regions), by whether the noncertainty PSU was a part of a standard metropolitan statistical area (SMSA) or not, and by whether the noncertainty PSU private school enrollment exceeded the median school enrollment for the same region and SMSA status, or not. From these noncertainty PSUs, 92 PSUs were selected. Four PSUs were allocated to each stratum, and the remaining 28 PSUs were allocated to nearly uniform fractions among each of the 16 strata. The sample PSU's were selected as a systematic sample with probability proportionate to the square root of the PSU population.

Extensive efforts in the form of mail and telephone inquiry were made by Westat to find and add any missing schools to the NCES list in each of the sampled PSUs, and to obtain questionnaires from the added schools.

Westat also made site visits to a subsample of 25 PSUs in an effort to find any private schools not already identified. This subsample included 4 of the 8 certainty PSUs and an equal probability sample of 21 of the 92 noncertainty PSUs.

The initial area sample specification of 100 PSUs was reduced by NCES to 75, due to a budget restriction. The 8 certainty PSUs and the 21 noncertainty PSUs allocated for site visits were kept in the area sample. The other 46 PSUs were subsampled from the remaining 71 noncertainty PSUs.

Two versions of a questionnaire were developed. The long version was used for the initial and two followup mailings to the sample drawn from the list frame, and the short version, which contained a subset of the questions from the long version, was administered over the telephone to schools from the list sample who did not respond to the mailings. The short version was also used in schools in the area sample.

The overall response rate for the list frame was 91.3 percent. The initial mailing resulted in a 46 percent response, and the first followup mailing achieved a 14 percent response. There was a 10 percent increase in response rate following the second followup mailing, which may, in part, have been a result of the telephone callback. The telephone followup alone achieved a 72 percent response rate.

The highest response rate was among Catholic schools (97.5 percent) and the lowest among schools in which affiliation was unknown (70 percent). Nonaffiliated schools had a 92.2 percent response rate, and schools with a religious affiliation other than Catholic had an 86 percent response rate.

The overall response rate for the area frame was 81.3 percent. Thirty-three percent responded to the initial mailing and 47.6 percent to the telephone followup.

Estimation procedures

Estimates of totals were obtained as weighted sums of the values reported, where the weights depended upon the probabilities of selection of the schools and upon the rate of response in certain subclasses of the sample.

Values for missing data were assigned based upon values available from sources external to the survey or from a hot-deck imputation procedure utilizing the survey data (Westat 1984a). Estimates of the sampling variance and standard error were computed using a jackknife procedure. The entire sample (excluding any units selected with certainty) was divided into a number of subsets consisting of two or more independently selected sampled units from a stratum or a pair of the strata used in the initial sample selection. Each subset was then divided into two half-samples, in such a way that each half-sample was an independent sample of the population subgroup of which the subset was a sample. A number of pseudoreplicate samples were then defined by including all sample units, except in a single subset only one of the two half-samples is included, and its weight is doubled in order to represent the excluded half-sample. To deal with both the list sample and the area sample, the pairs of half-samples were defined differently. If the statistic whose variance was being estimated was a short version item both the list sample and the area sample contributed to the statistic. If the statistic was based on data provided by the long version questionnaire only the list sample contributed to the statistic.

Estimates of the sampling variance and standard error were computed for 106 statistics. The SAS file that Westat supplied contained variables WA1-WA33 (the short version replicate weights for the replicates) and variables WL1-WL33 (the long version replicate weights). The long version replicate weights were all zero for those schools that responded with the short version questionnaire. The adjusted sample weights used to estimate totals and ratios were contained in the variables WGHTAL (short version) and WGHTLONG (long version).

III. THE PRIVATE SCHOOL SURVEY FOR 1985-86 (PSS 1985-86)

The 1985-86 Private School Study was designed by NCES to update information on private schools and to obtain nationally representative data on private school teachers. All data collection was performed by Westat, Inc.

Sampling design and data collection

The sampling frame for the study was the list of schools within the 75 PSUs selected for the 1983-84 survey and therefore did not include private schools that came into existence after 1983-84. A total of 1,700 private schools was sampled from these 75 PSUs, and up to 10 teachers were sampled from each school.

The schools were stratified by their affiliation and type. The three levels of affiliation were Catholic, other affiliated, and not affiliated, and the three levels of type were elementary, secondary, and combined. Nine strata of schools were formed by the cross of affiliation and type, and any school that did not fit into these nine strata was put into the "other" stratum. This "other" stratum consisted of special education, alternative, and vocational schools, in addition to those schools which had missing information on stratification.

A weighted measure of size was constructed by multiplying the square root of the school's enrollment by the weight of the PSU. The overall rate for selecting schools within a stratum was proportional to the school's weighted measure of size.

A sampling interval for each stratum was determined by dividing the measure of size by the product of the stratum sample size and the school's weighted measure of size. A school was included in the sample with certainty if its weighted measure of size was at least three-fourths of the interval. This procedure was repeated until no more certainty schools were identified, resulting in 1,045 schools being selected with certainty.

The stratum measure of size was then recomputed using the remaining schools. The sampling frame was ordered by PSU and size of enrollment within the PSU, and a systematic sample of 485 additional schools were chosen using the above described interval.

Finally, a systematic sample of 170 schools was sampled from the "other" stratum, where the within-PSU probability of selecting a school was set equal to the value of the sample size divided by the number of schools in the stratum.

The number of teachers to be sampled from each school was allowed to vary from school to school, in order that each teacher have approximately the same probability of selection. The overall sampling fraction was 0.025 (10,000/400,000). The within-school sampling rate was the product of the overall sampling rate was the product of the overall sampling rate and the reciprocal of the probability of selecting the school.

The number of teachers sampled from a school was computed as the product of the within-school sampling rate and the number of teachers in the school. A simple random sample of teachers was selected from each school with the restriction that the sample consist of no more than 10 teachers. Overall, 5,980 eligible teachers were samples from the 1,187 schools with an average of slightly more than 5 teachers sampled per school.

Two questionnaires were prepared by NCES, one for the schools and one for the teachers. Nonresponse followup included a mailing of questionnaires, a reminder telephone call to coordinators, and a followup call to obtain responses over the telephone. Private school organizations that approved of the study were also asked to assist with the followup.

The response rate to the first mailout was 47 percent for school questionnaires and 40 percent for teacher questionnaires, but only seven percent of the schools returned every questionnaire. The overall response rate was 80.7 percent, of which the coordinator reminder calls were the least successful data collection activity.

The response rate to the school questionnaire was 85 percent with some variation across school characteristics. For example, the response rate increased as the size of enrollment increased. Also, Catholic schools responded at a greater rate than either the other religiously affiliated schools or the nonaffiliated schools. On the other hand, response rates did not vary much across regions .

The overall teacher response rate was 76 percent. The pattern of overall teacher response rates by region, size, type and level, and affiliation are very similar to those of the response rates for the school questionnaire. Also, the teachers in the North Central region responded at a higher rate than those from any other region. However, some of these classification variables are highly correlated with each other, and this factor should be considered in viewing the response rates for the schools and teachers.

Estimation procedures

When item nonresponse occurred on the school questionnaires, five key items were used as matching variables: program type, grade span, religious orientation, enrollment size group, and religious denomination. A hot-deck imputation procedure was implemented using two different sort patterns with the matching variables. When the procedure failed to determine an appropriate match, another donor was identified or deductive imputation was used. For questions to which it was not possible to impute a response directly from the donor to the recipient, a proportion of the donor's response was used for imputation. The potential problem of multiple use of donors did not arise since the files were not too small, given the nonresponse pattern exhibited.

Item nonresponse in the teacher questionnaire was handled in a manner similar to the school questionnaire described above. Variables used for imputation included program type, region, grade span level, religious orientation, enrollment size group, total full-time teachers receiving income-in-kind, tuition group, and the NCES assigned school ID. Again, the hot-deck procedure was used for a majority of the responses that were imputed directly from the donor.

The national estimates of private schools and teachers were derived by using weights separately for the schools and teachers. First, the base weight was computed using the reciprocal of the probability of selecting the unit. Next, a nonresponse adjustment was made to account for each of 16 classes of schools and their corresponding teachers by forming weighted counts of respondents and nonrespondents. For the schools, a final ratio estimate was then formed, and for the teachers the estimates were adjusted to equal those from the school file.

The ratio estimate was computed using a sample estimate of the total number of schools. This estimate was derived by multiplying the QED count of schools for each PSU by the PSU weight and summing over all 75 PSUs. The ratio of this estimate to the QED national count of schools was 1.049, 1.336, 0.927, and 1.013 respectively for the following four categories of schools: Catholic elementary, Catholic not elementary, non-Catholic elementary and non-Catholic not elementary. The schools were divided into these categories for application of the ratio adjustment to reduce the sampling variability.

Sampling variability was estimated using a balanced half-sampling replication technique, known as balanced repeated replications. Nonsampling errors, such as errors made in the collection of the data could not be estimated (Westat 1986a).

IV. The 1985 Public School Survey

The 1985 Public School Survey was a mail sample survey conducted in late winter 1984 and spring 1985, which collected information on a nationally representative sample of 2,801 public schools and 10,650 teachers. School information was collected from the school administrators of the sample schools and included data on enrollment, staffing, minority enrollment, advanced placement programs, use of aides and volunteers, use of computers, and use of incentive programs for teachers. Teacher information included data on training, experience, age, race/ethnicity, teaching salary, working hours, and additional employment.

The school sample was selected from the National Center for Education Statistics' Common Core of Data (CCD) universe of public elementary and secondary schools as follows: 9 strata were defined, based on 3 categories of school type (elementary, secondary, and other) and 3 categories of school district size (1 to 5 schools, 5 to 50 schools, and more than 50 schools). The schools were selected independently within

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each stratum, with probabilities proportional to size. A school's size measure was defined as the square root of its full-time-equivalent number of teachers.

The teacher sample was selected according to a three-stage sampling design. The first stage sample consisted of the 2,801 schools. Lists of teachers were requested from all sampled schools. Each teacher within a sampled school was classified into one of three "teaching assignments" strata prior to the selection of sample teachers. The first of these strata consisted of general "Elementary" teachers, the second "Mathematics and Science" teachers, and the third of "Other" teachers. All teachers employed at those schools with four or fewer teachers were in the sample. a sample of four teachers was selected from each of the other cooperating sample schools according to a two-stage process which represented strata with probability proportional to size and teachers within strata with equal probability. A total of 10,650 sample teachers was selected.

The survey mailout began in February 1985 and continued into late spring. Questionnaire packets containing questionnaires for the school administrator and the selected teachers were addressed to the school administrator. Follow up efforts included additional mailings of questionnaires and telephone calls to nonrespondent administrators and teachers. The survey was closed out in June with a response rate of 84.6 percent for administrators and 80 percent for teachers.

V. Common Core of Data (CCD)

The Common Core of Data (CCD) administered by NCES is an annual universe survey of the State-level education agencies in the 50 States, the District of Columbia, and the outlying areas. Statistical information is reported on staff and students at the school, local education agency (LEA), and State levels; revenues and expenditures are reported at the State level. Data are collected on a school year basis (July 1 through June 30). Survey instruments are sent to the States by October 15 of the subsequent school year. States have a period of 2 years in which to modify the data originally submitted.

Since the CCD is a universe survey, the information presented in this report is not subject to sampling error. However, nonsampling error can occur from two main sources, non return and inaccurate reporting. Almost all of the States submit the six CCD survey instruments each year, but there are many delays in submitting data and the submissions are sometimes incomplete.

With the submission of data for about 85,000 public schools and approximately 15,800 local school districts compiled by 57 State education agencies, the opportunity does exist, however, for misreporting. This may occur for a variety of reasons. For example, interpretation of NCES definitions and record-keeping systems vary among the States. NCES attempts to minimize these errors by working closely with the Council of Chief States School Officers (CCSSO) and its Committee on Evaluation and Information (CEIS).

State education agencies report data to NCES, for which NCES reimburses them, from data collected and edited in the regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that these items will also be available for the subsequent CCD survey. The result over time has been fewer missing cells in each State's response with a lessening need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared State summary forms are returned to the State education agencies for verification. States are also given an opportunity to revise their State-level aggregates from the previous survey cycle.

VI. High School and Beyond (HS&B)

High School and Beyond (HS&B) is a national longitudinal survey of the 1980 high school seniors and sophomores conducted by NCES. A probability sample of 1,015 high schools was selected with a target number of 36 seniors and 36 sophomores in each of the schools. A total of 58,270 students participated in the base-year survey. Substitutions were made for noncooperating schools in those strata where it was possible, but not for students. Student and parent refusals and student absences resulted in an 84 percent completion rate for students. This rate refers to the overall response rate of the survey and not the completion rate of each item within the survey.

Several small groups in the population were oversampled to allow for special study of certain types of schools or students. Students completed questionnaires and took a battery of cognitive tests. In addition, a sample of parents of sophomores and seniors (about 3,600 for each cohort) was surveyed.

Nonresponse can come from the 9 percent school nonresponse, a 16 percent student nonresponse, and the nonresponse rates for given items. The nonresponse rate by items for those students returning a survey ranges from a low of 0.3 percent (questioning if the student expects to graduate) to a high of 21 percent (concerning family income).

As part of the first followup survey, transcripts were requested in fall 1982 for an 18,152-member subsample of the sophomore cohort. Of the 15,941 transcripts actually obtained, 1,969 were excluded because the students had dropped out of school before graduation, 799 were excluded because they were incomplete, and 1,057 transcripts were excluded because the student graduated before 1982 or the transcript indicated neither a dropout status nor graduation. As part of the second followup survey in 1984, postsecondary transcripts were sought for the 7,434 1980 high school seniors who reported attending any type of postsecondary school or college since leaving high school. One or more transcripts were obtained for 93 percent of the cases.

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